The Thesis Committee for Amelia Bowen Koford
Certifies that this is the approved version of the following thesis:

"Strong Views About What You Call Things": How Disability Studies Scholars Interact with Information Classification Systems

APPROVED BY
SUPERVISING COMMITTEE:

Supervisor:

Melanie Feinberg

Philip Doty

"Strong Views About What You Call Things": How Disability Studies Scholars Interact with Information Classification Systems

by

Amelia Bowen Koford, B.A.

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Abstract

"Strong Views About What You Call Things": How Disability Studies Scholars Interact with Information Classification Systems

Amelia Bowen Koford, M.S.Info.Stds.; M.A.

The University of Texas at Austin, 2012

Supervisor: Melanie Feinberg

Information studies writers from various theoretical perspectives, including feminism and critical race theory, have argued that information classification systems are politically charged artifacts that privilege some types of information while marginalizing others. Although several writers have documented the limitations of classification systems in representing marginalized topics, few have studied how searchers understand, address, and circumvent these limitations. To investigate this question, I conducted a qualitative study of the information seeking behavior of nine disability studies scholars. In semi-structured interviews, I asked faculty members and graduate students about their experiences conducting disability studies research. In this thesis, I discuss three main themes from the interviews: research challenges, search tactics and strategies, and interaction with subject headings. I also discuss the Library of Congress Subject Headings for one book, Eli Clare's *Exile and Pride: Disability, Queerness and Liberation*, as a case study. I situate scholars' experiences in relation to disability studies

as a field that is interdisciplinary, relatively new, and concerned with a group that has been socially and economically marginalized. I offer suggestions about how librarians and knowledge organizers can address the needs of researchers in disability studies and other critical interdisciplinary fields.

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Chapter 1: Introduction

The title of this thesis, "Strong Views About What You Call Things," is a quotation from a scholar who has worked in the academic field of disability studies since its emergence in the 1980s. He was describing the fact that scholars in disability studies, as well as those in other fields concerned with social justice, pay close attention to the politics of language and naming. For this thesis, I conducted interviews with nine disability studies scholars to investigate the ways they interact with the classification systems used to organize information in libraries, databases, and other information systems. Assigning names is an inherent function of classification systems, and, by understanding the experiences of scholars interested in the implications of naming, we can learn about the ways people seek information and about the classification systems themselves.

The way documents are organized in libraries, archives, databases, and websites has a profound impact on what information is retrieved and what remains unseen. Information studies writers from various theoretical perspectives, including feminism (Olson, 2007), critical race theory (Furner, 2007), and "radical librarianship" (Berman, 1971/1993), have argued that information classification systems are politically charged artifacts with important social justice implications. Rather than neutrally reflecting the structure of reality, information systems are shaped by the values of the cultures that create them. As Bowker and Star write, "Each standard and each category valorizes some point of view and silences another" (1999, p. 5). As a result, some writers argue, people seeking information about marginalized topics along the axes of gender, race, sexuality, and ability often experience difficulty finding materials or encounter misleading and off-putting labels. tatiana de la tierra (2008), for example, writes that "Latina lesbians and all

queers have the well-documented tradition of going to the library as part of critical soul-searching that precedes the 'coming out' process—and leaving disappointed" (p. 94) and that "Despite the reality that most Latin@s call ourselves Latin@, we are, by Library of Congress standards, 'Hispanic'—a term that so many of us have loathed since it entered popular use during the Reagan administration" (p. 96).

Although several writers have documented the limitations of classification systems in representing marginalized topics, few have studied how searchers understand, address, and circumvent these limitations. In order to investigate this question, I conducted a qualitative study of the information seeking behavior of nine disability studies scholars. Information seeking in the field of disability studies is especially complex because the field is interdisciplinary, relatively young, and concerned with people who have historically been marginalized and misrepresented in society. In semi-structured interviews, I asked faculty members and graduate students about their experiences conducting disability studies research. I had the following research questions:

- How do disability studies scholars find the information they use in their academic research?

- What use do participants make of various information-seeking techniques?

- Do participants perceive their research topics as poorly represented or hard to find? If so, what strategies do they use to address these limitations?

In the chapters of this thesis, I discuss several themes that emerged from the interview data. Chapter 2 discusses research challenges that participants experienced, Chapter 3 discusses search tactics and strategies that participants used, Chapter 4 discusses the ways participants interact with subject headings in library catalogs and databases, and Chapter 5 discusses conclusions, recommendations, and future work.

RESEARCH METHODS

I collected qualitative data through semi-structured interviews with nine disability studies scholars. I chose to interview academic researchers, rather than another group of information seekers, because academic research requires extensive and ongoing engagement with information organization systems. I chose to conduct a qualitative study with a small group of participants because it allowed me to hear from participants in their own words and to remain open to unanticipated findings. My goal was to conduct an exploratory study that suggested directions for future inquiry, not to produce generalizable results. Closely analyzing each interview transcript allowed me to draw connections between participants and to situate scholars' experiences and behaviors in relation to information classification systems.

I used a purposive sampling method, identifying and recruiting participants from a variety of home disciplines and academic ranks. One participant was an existing professional contact, two were referred to me by another professional contact, and I identified the rest by searching online for personal and departmental profiles mentioning disability studies as a research interest. I contacted potential participants by email, and everyone I contacted agreed to be interviewed. I required participants to be current faculty members or graduate students, to consider disability studies to be one of their primary research interests, and to have conducted research in the field of disability studies for at least one year.

Three of the participants were doctoral candidates, one was an assistant professor, three were associate professors, and two were full professors. I attempted to choose participants from a variety of academic departments to reflect the disciplinary diversity of

disability studies. The participants identified the following home departments (or disciplines, in cases without a traditional departmental structure): English (two participants), feminist studies, law, nursing, philosophy, social work, sociology and public policy, and education. When asked what gender pronouns they preferred, five said female pronouns, three said male pronouns, and one said it did not matter. Participants' ages ranged from 29 to 63, with a median age of 42. The nine participants came from six different colleges and universities, including both private and public institutions of varying sizes.

In this document, I refer to participants by number codes comprised of the letter P (for participant) and a number—P1, P2, etc. Table 1 shows each participant's number code, home department or discipline, and status as a faculty member or graduate student.

I conducted interviews between October 2011 and January 2012. Interviews ranged in approximate length from 22 to 45 minutes. I interviewed five people in person, three over the phone, and one via Skype video chat. Before the first interview, I conducted a pilot interview to identify unclear questions and get ideas for new questions. The interview questions focused on participants' experiences seeking information for their academic research in the field of disability studies. I asked participants to tell me about their experiences searching for published and unpublished literature rather than gathering other types of information, such as experimental data. At the beginning of the interviews, I asked participants to tell me about a current or recently completed research project and reflect on what kind of information they needed for that project, where they found it, and the quality and relevance of the information they found. Later in the interview, I asked about the participants' use of any specific information search tactics they had not already mentioned, such as searching library databases, searching the Web, browsing through library shelves, following citations, and using subject headings.

In the final section of each interview, I asked participants to discuss example records from different information systems. Before each interview, I learned what I could about each participant's research interests by reading his or her CV, publications, and/or faculty profile online. I then found an article that I judged to be relevant to the participant's research interests and that was represented in several different databases and information systems. In one case, I used an article written by the participant; in most cases, I used an article the participant had cited or one that I thought would be relevant to one of their academic interests. Once I found a suitable article, I produced printouts (for in-person interviews) or screenshots (for remote interviews) of the same article's record in four different information systems. I always used two records from subscription-based databases, one search result page from Google, and one search result page from Google Scholar. For example, for my interview with an education scholar, I captured the representations of one article in Education Resource Information Center (ERIC), Education Full Text, Google, and Google Scholar. I chose to include representations from library databases, Google, and Google Scholar because my professional experience in the reference department of an academic library suggested that these are some of the most common tools used for academic information seeking. In this context, I use the word "representation" to mean both records from databases and search result pages from Google and Google Scholar, since database records and search result pages serve similar functions in representing articles in information systems. I asked participants questions about their impressions of the four different representations. I tried to get a sense of what they liked and disliked about each representation, whether they felt that the article was adequately characterized by the four information systems, and what aspects of the representation they noticed or used.

I used the same basic interview guide for all the interviews, but asked a variety of follow-up questions depending on the direction of the conversation. I also made changes to the interview guide between interviews to help clarify wording and probe interesting topics. I audio-recorded and transcribed the interviews.

To analyze the data, I engaged in a process of selective coding to identify salient themes. I engaged in memo writing (Charmaz, 2006) to explore and refine these themes. I reflect on them in the chapters of the thesis, putting participants' experiences in conversation with several bodies of literature.

After writing a first draft of my findings, I used the technique of member checking (Lincoln & Guba, 1985). I emailed the draft to the participants, asking them how my analysis compared with their understandings of their experiences and whether there was anything they would add to or change. Eight participants responded, with seven saying that they felt my analysis was accurate and/or that they had nothing to change, and one suggesting small changes that I incorporated into the final draft. Lincoln and Guba write that member checking is "the most crucial technique for establishing credibility" (1985, p. 314). Ely et al. write that member checking is valuable because of "the shared discussion and what this can do to inform and to establish collegiality" (1991, p. 167). To me, giving the participants the opportunity to contribute in this way was valuable because it helped make the project a collaborative effort between the researcher and the participants.

In addition to gathering data from nine anonymous participants, I conducted one interview "on the record" to add another dimension to the thesis project. This interview, with author Eli Clare, came about as a result of his giving a talk on the University of Texas at Austin campus. After he spoke, I bought his book *Exile and Pride: Disability, Queerness, and Liberation* (2009) and asked him about his impressions of the subject

headings the Library of Congress has assigned to it. The question led to an interesting conversation, and I invited him to participate in an interview about the subject headings, which we conducted by phone a few weeks later. Interviewing Clare on the record allows me to use the subject headings for *Exile and Pride* as a case study of the representation of disability studies materials by a widely used information classification system. As an author, Clare is in a different position than researchers with respect to information systems, and as an activist for transgender and disability rights, his perspective on the politics of classification and representation might differ from the perspectives of scholars.

My combination of methods is unique, and part of my contribution to the literature is in modeling this methodological approach. I use feminist and critical theories about organization and representation as a starting point. Feminists studying classification systems often use the methods of cultural criticism and historical analysis, and I also employ these methods. In addition, I gathered data with an empirical study of user behavior. By bringing the fields of information behavior, knowledge organization, and critical theory into conversation, I am able to investigate the specific and case-based effects of classification systems.

THEORETICAL PERSPECTIVE

My research questions, research methods, and data analysis are all informed by a feminist theoretical perspective. To me, using a feminist perspective means investigating the way that structures of power and privilege in society affect a research topic. In this case, I focus on how power structures affect classification systems and researchers' search experiences. As a feminist, I usually study gender as a site for the organization of power, privilege, and social roles; however, in this project, I focus on disability as a site for these

forces. I see disability as a fruitful site of feminist analysis. As Rosemarie Garland-Thomson states, “the most compelling and complex analyses of gender intersectionality take into consideration what I call the ability/disability system—along with race, ethnicity, sexuality, and class” (2002, p. 2). My commitment to feminist scholarship means that I strive to be an activist-scholar, conducting research that contributes to social justice projects. In the tradition of critiques of positivism, I “see the interview as a site in which interviewers and interviewees co-construct data for research projects rather than as a setting that provides authentic and direct contact with interviewees' realities” (Roulston, deMarrais, & Lewis, 2003, p. 645).

My feminist perspective affected several decisions about the design of my project. As a feminist researcher, I am committed to understanding the specific, situated experience of each participant, and to giving participants a platform to describe their lives in their own words. Those commitments contributed to my decisions to tailor interviews to individuals—for example, by showing each scholar a different example article—and to incorporate many verbatim quotations into the research report. I gave participants the opportunity to see and comment on a draft of the thesis, which helped mark it as a document of jointly created meaning. My decision to incorporate Eli Clare's perspective was influenced by my desire to incorporate a multiplicity of voices, especially the voice of an activist outside the academy, since the fields of feminist studies and disability studies both have strong ties to activist movements.

Feminist researchers pay close attention to the power differential between interviewer and participant (Hesse-Biber & Leavy, 2007). The power differentials in my study are not as obvious as those in some situations, because the participants work in academic careers, as I do, and as faculty members and doctoral students, thereby occupying higher academic ranks than mine. However, our interviews, like all social

interactions, were undoubtedly shaped by power, privilege, and difference. For example, the fact that I am an outsider to disability studies research affected the dynamic of the interviews.

DISABILITY STUDIES

The scholars I spoke to identify disability studies as one of their primary research interests. Disability studies is an interdisciplinary academic field that analyzes the meanings societies ascribe to bodily and cognitive differences. In 1994, Simi Linton, Susan Mello, and John O'Neill developed a definition of disability studies that states: "Disability Studies reframes the study of disability by focusing on it as a social phenomenon, social construct, metaphor, and culture utilizing a minority group model" (cited in Pfeiffer & Yoshida, 1995, p. 480). Working in a disability studies paradigm means focusing on disability as a socially and culturally constructed category rather than as a solely medical phenomenon. As Linton, Mello, and O'Neill write, "This shift does not signify a denial of the presence of impairments, nor a rejection of the utility of intervention and treatment. Instead, Disability Studies has been developed to disentangle impairments from the myth, ideology, and stigma that influence social interaction and social policy" (p. 480).

Linton, Mello, and O'Neill also state that disability studies "both emanates from and supports the Disability Rights movement which advocates for civil rights and self-determination" (cited in Pfeiffer & Yoshida, 1995, p. 480). According to Paul Longmore (2003), the disability rights movement in the U.S. can be traced to the 1940s, although some advocacy organizations for people with disabilities existed before that time. After the end of World War II, several social movements arose to promote causes such as equal access to education, deinstitutionalization and independent living, the teaching of sign

language, and access to public transportation. The disability rights movement reframed accommodations such as wheelchair ramps and sign language interpreters as necessary to ensure equal rights rather than as special benefits provided out of charity, and argued that the forced institutionalization and sterilization of people with disabilities represented violations of basic human rights. Over the years, disability rights groups have continued to fight for equal access to employment, education, housing, and public spaces, using tactics such as legislative activism, community organizing, and nonviolent direct action. A slogan commonly used in the disability rights movement, "nothing about us without us," demonstrates the movement's emphasis on self-advocacy by people with disabilities. As in any situation where an activist movement and an academic field are closely linked, tensions might occasionally arise between disability studies and the disability rights movement. A 2001 article in Ragged Edge, an online disability rights magazine, reported that at the first international disability studies conference, attendees discussed whether disability studies was at risk of losing its radical commitments and oppressing those it studies (Johnson, 2001). In general, however, disability studies and the disability rights movement reinforce and strengthen each other.

In this thesis, I argue that materials of interest to disability studies scholars might be poorly represented in classification systems that reflect the structures of power of the societies that produce them. One of the assumptions implicit in my hypothesis is that people with disabilities constitute a marginalized or oppressed group. This assertion is based on arguments by disability studies scholars and disability rights activists. James I. Charlton summarizes some of the aspects of disability oppression in his book *Nothing About Us Without Us: Disability Oppression and Empowerment* (1998). Focusing on the economic and political powerlessness of people with disabilities around the world, he argues that "the poverty, isolation, indignity, and dependence of these 500 million people

with disabilities is evidence of a major human rights catastrophe" (ix). He lists several dimensions of disability oppression: first, the global political-economic system has developed in a way that creates an "underclass" of people who "will seldom, if ever, under ordinary circumstances be used in the production, exchange, and distribution of political and economic goods and services" (p. 24). People with disabilities, he argues, are almost always relegated to this "underclass" and thereby deprived of economic and political power. Second, cultures and belief systems perpetuate pejorative and paternalistic understandings of disability. Third, people with disabilities experience internalized oppression, causing feelings of self-pity and self-hatred. Charlton emphasizes the point that disability oppression is not caused by people without disabilities or by "culture" in a vacuum; rather, it is a product of societal structures "that marginalize people for political-economic and sociocultural reasons" (p. 22).

In the United States, disability studies developed as an academic field in the 1980s. Sharon Snyder (2006) identifies two points of origin: the Society for the Study of Chronic Illness and Disability, founded in 1982 and renamed the Society for Disability Studies in 1986; and a newsletter distributed beginning in the 1980s by Brandeis University Sociology department chair Irving K. Zola, which grew into the journal *Disability Studies Quarterly*. Although various academic disciplines studied disability before the 1980s, disability studies scholars identified their work as constituting a new field, largely because of its emphasis on the social experience of disability and its affiliation with the disability rights movement. In the three decades since 1982, the field of disability studies has grown and changed. In the preface to the second edition of the *Disability Studies Reader*, published in 2006, Lennard J. Davis reflects on the changes since the publication of the first edition in 1997, writing, "It is gratifying to note that after less than a decade…Disability studies is taught throughout the United States, the United

Kingdom, and the world. Every year there are more and more disability studies degree-granting programs" (2006, xiii).

Because the disability studies movement originated in the social sciences and humanities, and critiqued the way that people with disabilities were traditionally treated by the medical, governmental, and educational establishments, it can be easy to think of disability studies in opposition to those professional fields. This misconception, however, limits the potential of disability studies to transform the culture's response to disability. The participants in this research study, including those from nursing, social work, and special education, self-identify as disability studies scholars. Although not all research on disability is disability studies research, many people in applied disciplines have or are willing to develop perspectives that foreground the self-advocacy of people with disabilities.

Prior to this project, I was not very familiar with disability studies, and I am currently enrolled in my first disability studies course. As a master's student in Women's and Gender Studies, though, I am interested in any scholarship that examines social power relations and incorporates the perspectives of disenfranchised groups. As I learned about disability studies and the disability rights movement through reading articles and talking with friends, I became interested in engaging with this emerging and exciting field.

RESEARCH ON CLASSIFICATION AND INFORMATION BEHAVIOR

My research project is in conversation with several bodies of literature. When I first became interested in doing information studies research from a feminist perspective, the literature that most interested me was critical classification theory, as pioneered by

writers such as Sanford Berman (2006) and Hope Olson (2001). These writers argued that "classifications reflect philosophical and ideological presumptions of their cultures" (Olson, 1998, p. 234) and privilege particular perspectives while marginalizing others. As I continued reading about classification theory, I became interested in understanding how the inherent biases of classification systems affect the daily work of researchers. I decided to do an empirical study of the information behavior of scholars. Methodologically, then, my project adds to the rich literature on scholarly information behavior. More specifically, it relates to studies of information behavior in other critical interdisciplinary fields, such as women's studies and critical race studies. To my knowledge, mine is the first study of the information behavior of disability studies scholars. In this section, I will briefly review some of the literature on critical classification theory and information seeking in critical interdisciplinary fields that has informed my project.

Critical classification theory

Knowledge organization, as a branch of information studies, originally focused on developing systems for organizing books in libraries. Later, as storing and accessing digital information became important, knowledge organizers broadened their focus to include systems for organizing electronic items. Knowledge organization (KO) can be defined as "the field of scholarship concerned with the design, study, and critique of the processes of organizing and representing documents that societies see as worthy of preserving" (Tennis, 2008, p. 103).

Organizing knowledge usually involves using one or more organizational schemes. Some examples of organizational schemes are:

- Classification schedules, such as the Dewey Decimal Classification

- Controlled vocabularies, such as the Library of Congress Subject Headings

- Information architectures, such as the arrangement of pages in a large website.

Historically, designers of organizational schemes sought to develop neutral classifications that revealed the one true order to the universe. Hjørland (2008) summarizes this view within the field of knowledge organization: "A dominant view has been that knowledge and KO should be understood as a passive reflection of an external order. This has been termed the mirror metaphor of knowledge and is related to empiricism and positivism" (p. 156). The Dewey Decimal Classification, which was developed in 1876 and divides all knowledge into ten categories, is an example of this type of organizational scheme.

By the 1970s, several scholars were questioning positivist assumptions about the nature of knowledge and classification. I refer to this wave of scholarship as critical classification theory. The word "critical," in this sense, aligns this branch of classification theory with critical race theory and the critical theory advanced by the Frankfurt School of philosophy. Stephen Bronner (2008, p. 256) states:

> Critical theory in the twentieth century, from the first, expressed an explicit interest in the abolition of social injustice. The aim of its partisans was to show how repressive interests were hidden by the supposedly neutral formulations of science no less than ontology.... (p. 5)

I define critical classification theory, then, as theory that concerns itself with value systems hidden by supposedly neutral classification schemes. The scholars I discuss would not necessarily identify themselves as critical classification theorists, and the non-neutrality of classification systems is a much less radical idea now than it was in the past; nevertheless, the term is useful in defining a particular intellectual program.

Sanford Berman, a self-described radical librarian and an outspoken advocate for reforms to the Library of Congress Subject Headings, is one writer concerned with the

political implications of classifications. His *Prejudices and Antipathies: A Tract on the LC Subject Heads Concerning People* (1971/1993) is "[a]rguably the foundational work of modern socially responsible cataloging" (Hasenstab, 2008, p. 82). In *Prejudices and Antipathies*, Berman identified 225 Library of Congress Subject Headings that, he argued, perpetuated racial, cultural, and gender stereotypes. For example, he called for the reform of the subject heading *Women as astronauts*, pointing out that the use of the word "as" posits males in this occupation as the norm and females as an anomaly. The Library of Congress has since implemented this change, using instead the subject heading *Women astronauts*. Other recommendations from this text have also been put in place, including the elimination of "Jewish Question" and "Yellow Peril" and the deletion of "Homosexuality" and "Lesbianism" as "*see also*" terms under the heading "Sexual Perversion" (Berman, 1993, p. 5). Berman's advocacy was grounded in the idea that members of privileged groups are implicated in structures of oppression, and he wanted librarians to acknowledge and accept the power and responsibility that comes with naming and classifying information. After Berman published *Prejudices and Antipathies*, many more authors documented negative biases in classification schemes; Olson and Schlegl (2001) identified 93 studies on this topic.

In several publications beginning in the 1990s, Hope Olson offers a feminist critique of library classification. Noting that most classification schemes used in libraries were designed by straight, white, Christian males in Western countries, Olson argues that "classifications reflect philosophical and ideological presumptions of their cultures" (1998, p. 234) and are often inadequate in representing marginalized topics. She analyzes several contemporary and historical classification standards, arguing that, by enforcing universal naming languages, representation systems erase difference and reinforce the exclusion of materials relating to women, GLBTQ (gay, lesbian, bisexual, transgender,

queer) people, people of color, and other marginalized groups. She finds three main problems with the way that classification schemes represent women: "they treat women as exceptions to a masculine norm, they ghettoize women's issues by separating them from the rest of knowledge, or they omit women's issues altogether" (2002, p. 9). An example of the first problem, treating women as exceptions to the masculine norm, is the subject heading "gifted women" with no parallel heading for "gifted men":

> Historically, authors writing about gifted people have focused solely on men without acknowledging this focus, while authors writing about gifted women have had to foreground the issue of gender in relation to their topic. Thus the language of LCSH perceives books about gifted men as the norm. (2001, p. 646)

Olson suggests that incorporating a theory of "connected knowing" (Olson, 2007, p. 525) into the organization of information, alongside hierarchical structures, would create a more flexible, feminist mode of organization.

Olson writes that "The problem of bias in classification can be linked to the nature of classification as a social construct. It reflects the same biases as the culture that creates it" (1998, pp. 233–234). Furthermore, she states that a perfectly unbiased classification scheme would be impossible, since "all systems will exclude and marginalize in some way" (pp. 251-252). In order for systems to do meaningful classificatory work, they must group together items that are similar in some ways and different in other ways. By necessity, some features of items are not represented. The idea that bias is an inherent characteristic of classification schemes is now common among critical classification theorists. Berman, however, does not conceptualize bias as inevitable, perhaps for fear that such a conception might be used as a political rationale for inaction. As Emily Drabinski (2008) states, "Berman did not take issue with the fundamentals of library classification. The goal of library classifications—to bring human knowledge together under a single unifying, universalizing structure and language—was central to Berman's

point" (p. 200). Berman addresses the topic of bias in responding to a *Library Journal* article in which A.C. Foskett defends the Library of Congress (LC) and Sears subject headings based on the fact that they are rooted in a Western worldview. Foskett states that these schemata necessarily "reflect the historical bias of those libraries and their users" (Berman, 1971/1993, p. 16). Berman replies:

> Exactly the point! Once recognized, surely the most foolish and wrong-headed aspects of the bias can be corrected…Just because the scheme generated, historically, within a Western framework of late Victorianism, rampant industrial expansion, and feverish empire-building…is no valid reason for perpetuating, either in our crania or catalogues, the humanity-degrading, intellect-constricting rubbish that litters the LC list. (p. 16)

A variety of writers in recent years have employed what I consider to be a critical classification theory perspective. Jonathan Furner (2007) suggests that critical race theory can be used to assess information classification schemes, and offers a critique of the Dewey Decimal Classification's treatment of race. Melanie Feinberg (2007) argues that, since all systems express a point of view, classification designers should focus on articulating that point of view effectively. By making their viewpoints and goals more explicit, either in written introductions to classification schemes or in the structure of words and relationships, designers can move from "hidden bias to responsible bias." Jens-Erik Mai (2010) writes that "classification should not strive towards being correct, but towards being trustworthy" (p. 638).

My project contributes to critical classification theory by providing the perspective of scholars who frequently use information systems to seek documents about a historically marginalized group. Hope Olson states that searching for marginalized materials is qualitatively different than searching for mainstream topics:

> Library users seeking material on topics outside of a traditional mainstream will meet with frustration in finding nothing, or they will find something but miss

> important relevant materials. Effective searching for marginalized topics will require greater ingenuity and serendipity than searching for mainstream topics. (2001, p. 639)

Olson does not elaborate, however, on the nature of these creative search strategies, focusing instead on critiquing the classification schemes themselves. Disability Studies can be conceptualized as one of the "topics outside of a traditional mainstream" that Olson identifies. The field is interdisciplinary and relatively new, uses new and repurposed vocabulary, and is concerned with a group that has historically been without political and economic power. In analyzing the information seeking behavior of professional researchers using systems that purportedly marginalize their research topics, I hope to add an additional dimension to the literature on critical classification theories.

Information behavior in critical interdisciplinary fields

Librarians and information studies scholars have long been interested in studying how people search for and interact with information. The body of literature that empirically investigates people's interactions with information can be broadly defined as information behavior research. Researchers in the information studies field differentiate between information behavior, information seeking behavior, and information searching behavior. The distinction between the terms is sometimes slippery; Marcia Bates (2010) states that "information behavior" is a relatively new term, having come into wide use in the 1990s. According to Wilson (2000), information behavior includes all aspects of people's finding and using information; information seeking behavior is "the purposive seeking for information as a consequence of a need to satisfy some goal" (p. 49); and information searching behavior involves peoples' specific actions in interacting with information systems. The research I conducted for this thesis focuses on information seeking behavior. If my focus were information behavior, I would have asked participants

about how they use information in addition to how they find it. If my focus were information searching behavior, I would have focused more closely on the specific details of participants' interactions with particular systems, although some of my discussions of participants' search strategies—for example, their decisions about altering search terms—can be understood as information searching behavior. In this literature review, I use the term "information behavior research" as a broad term that also includes information seeking research.

Information behavior research often focuses on a particular group of users, grouping them by academic discipline (chemists, psychologists, historians), by professional identity (doctors, lawyers), or by demographic group (older people, low-income people). Researchers gather information about how these groups identify information needs, where and how they seek information, and how they use the information they find. Wilson states that librarians have conducted surveys to learn about their patrons since at least the 1910s, although many of these surveys "were concerned less with the needs that led people to the library as a source of information and more with issues such as the social class make-up of the clientele" (2000, p. 50). He states that the modern era of information behavior research began in 1948 with the formation of the Royal Society Scientific Information Conference. According to Bates (2010), historical trends have dictated which areas receive attention from information behavior researchers. In the 1950s and 1960s, research focused on the information behavior of scientists and engineers, due to generous grant funding in the wake of the United States government's postwar enthusiasm for scientific research. In the 1970s, there was a wave of interest in studying the behavior of social scientists, especially in Great Britain. The 1960s and 1970s also saw an emphasis on the information behavior of ethnic minorities, the poor, and other groups whose social status was highlighted in struggles for civil rights and

women's rights. In the 1980s and 1990s, attention turned to the humanities, with many studies funded by the J. Paul Getty Trust. In the 1990s and 2000s, researchers began investigating interdisciplinary and area studies fields.

One of the early discussions of interdisciplinary information seeking was Bates's article "Learning About the Information Seeking of Interdisciplinary Scholars and Students" (1996). Bates argued that it was time for information studies researchers to focus on interdisciplinary fields, pointing out the "increasing interest in interdisciplinary work in scholarship, in fields such as popular culture, film studies, ethnic studies, gay and lesbian studies, and women's studies" (p. 156). Bates identified existing information behavior literature and identified possible applications to interdisciplinarity. For example, she discussed the concept of scatter, introduced by Mote (1962). Mote divided scientists into groups based on whether they worked in "a subject of which the underlying principles are well developed, the literature is well organized, and the width of the subject area is fairly well defined" (p. 170) or whether their research area spanned multiple subjects and did not have a well-organized literature. He found that scientists from the latter fields asked librarians more questions, and that those questions were more time-consuming. Fields without clear boundaries and an organized body of literature came to be known as high-scatter fields. Bates summarizes Mote's study as well as several other studies of information behavior in science and engineering, hypothesizing that their conclusions might be applicable to interdisciplinary fields in the humanities and social sciences.

The research focus on science and engineering that Bates encountered in 1996 continues today. In searching the Library Literature and Information Science database for user studies of interdisciplinary fields, I primarily found articles dealing with the sciences. In addition, according to Bronstein (2007), most information behavior studies

employ quantitative rather than qualitative research methods. My qualitative study of interdisciplinary information behavior in a non-science field, therefore, contributes to the literature on a relatively under-studied topic.

Don Spanner's "Border Crossings: Understanding the Cultural and Informational Dilemmas of Interdisciplinary Scholars" (2001) is one of the few articles on interdisciplinary information seeking that includes humanities and social science scholars in addition to scientists. Spanner explicitly cites Bates's call for more research on interdisciplinarity as impetus for his study. Spanner conducted interviews with 23 scholars in interdisciplinary fields such as medieval studies, American studies, women's studies, and neuroscience. He found that interviewees experienced three major problems in their information seeking: time management, feelings of insecurity in their non-affiliate fields, and coping with inadequate collections in their interdisciplinary fields. With respect to searching, Spanner found that scholars experienced frustrations with search engines, indexing, and information overload. They also relied on references in publications and communications from colleagues more than on formal bibliographic tools. Spanner also noted that the assistant professors in his study experienced the most frustration and anxiety with interdisciplinary work, with the full professors experiencing the least.

Disability studies, as an interdisciplinary field that focuses on a demographic group that is often socially and cultural marginalized, belongs to a set of academic areas of inquiry I call critical interdisciplinary fields. This set includes women's and gender studies, critical race studies, indigenous studies, and GLBTQ (gay, lesbian, bisexual, transgender, queer) studies. "Critical interdisciplinary fields" is an imperfect blanket term, but it is useful to draw connections between these fields with respect to information seeking. Searchers in these fields encounter some problems common to all

interdisciplinary inquiry, such as differences in vocabulary, challenges keeping up with the literature of multiple fields, and lack of library resources to add subscriptions to new journals. But unlike interdisciplinary fields such as neuroscience and medieval studies—which have their own unique challenges—critical interdisciplinary studies face problems stemming from the fact that their areas of interests are traditionally devalued in society. This devaluing affects searching in two major ways: materials are labeled inadequately in Eurocentric, androcentric classification schemes; and materials such as publications and videos are not deemed worthy of saving in cultural heritage institutions.

Lynn Westbrook's research on women's studies scholars is a well-known example of information behavior research in a critical interdisciplinary field. In one article (2003), she reports on the results of a survey of 215 faculty members and 43 librarians involved in women's studies. Scholars described encountering several problems in their information seeking, including difficulty keeping up with multiple fields and frustration with the amount of time it takes to get materials. Westbrook offers suggestions for improved library support, proposing that librarians develop systems to help scholars track current research and find meaningful summaries.

My study both resembles and differs from most other studies of the information-seeking behaviors of academic scholars. Like other information studies researchers, I attempt to gain a deeper understanding of how scholars search for information. Unlike most other information behavior studies, mine is informed by a guiding theory about the nature of classification systems.

Chapter 2: Search Challenges in Disability Studies

Participants described encountering a variety of challenges in their search processes. All research is challenging, but some of the difficulties participants encountered seem to be related to the characteristics of the disability studies field. In this chapter, I discuss three factors that affect searching for disability studies material: a lack of academic infrastructure, participants' uncertainty about reasons for not finding material, and an inability to specify a theoretical perspective.

LACK OF ACADEMIC INFRASTRUCTURE

One challenge participants described was a lack of academic infrastructure supporting disability studies research. When I discuss academic infrastructure, I am referring to resources supporting a particular academic discipline, such as subject-specific databases, departments and centers within universities, and professional associations. The young field of disability studies has some of these resources, but not others, and resources that support disability studies as a broad field might not cover particular subfields.

Spanner's definition of fringe, as opposed to established, interdisciplinary areas is useful here. He refers to fields such as medieval studies, American studies, and women's studies as established interdisciplinary areas, because they "have matured to the point that they have taken on institutional characteristics" (2001, p. 353). Fringe areas, on the other hand, are those that have not yet matured to that point. His example of a fringe scholar is someone working at the intersection of theoretical computer science and molecular biology. I argue that disability studies is something between a fringe area and an established area. There are centers, associations, and journals focused on disability

studies, but they are few in number. There is no subject-specific database for disability studies. I also argue that many of the scholars I spoke to work in fringe areas at the intersections of disability studies and their home disciplines. The participants who study disability studies and law or disability studies and philosophy, for example, fit Spanner's description of fringe scholars as having "few confreres, let alone an institutional structure to support such work" (p. 353). The legal scholar I spoke with, P7, said that the group of legal scholars writing about disability was "a small enough community that we all sort of know each other."

Several anecdotes from P4, the philosophy scholar, illustrate his position in a fringe area. In discussing a paper he presented at a small philosophy conference, he said that he suspected that a paper about disability would not be accepted at the conference of the American Philosophical Association. He also mentioned the lack of a database for disability studies, saying, "as far as I know there's not a similar thing like the Philosopher's Index in disability studies." P4 has written to the *Chronicle of Higher Education* asking that they add a disability studies category to their new book reviews section. He did not receive a response. In discussing his desire for the inclusion of disability studies book reviews in the *Chronicle of Higher Education*, he said:

> So that would be a good location, not just for me, but for other academics to see that there are books published in the area. I'm sure there's probably almost as many books in Disability Studies as there would be in queer studies or labor studies, but it's still not a legitimate research category in the minds of many folks.

P4's experience shows that disability studies does not have as much visibility as some other interdisciplinary fields. This lack of visibility in academia is related to the status of disability studies as a young field. Recognizing that disability studies scholars often lack the resources available in more mature, established fields helps explain why they might search in different ways or require different kinds of support from librarians.

UNCERTAINTY ABOUT REASONS FOR NOT FINDING MATERIAL

Two participants described feelings of uncertainty about the reasons they were not finding material on their topics. They wondered whether they were having trouble finding information because of the way they were conducting searches or because the information did not exist. P4 expressed his uncertainty this way: "So with the research part, I'm always like, well, is it me, is it the databases, is it the Internet, is it just lack of sources?" Similarly, P9 expressed uncertainty about whether her lack of search results was related to her search processes or to a lack of relevant material. She said, "I definitely wasn't pulling up as much as I wanted, and I don't know if it was because of the way I was searching or if it was because it wasn't there. It was probably some of both."

Published literature on information seeking indicates that people often feel uncertainty and insecurity during the search process. In her foundational studies of information seeking, Carol Kuhlthau found that each stage of the information search process was associated with different feelings and confidence levels (1994). Some research indicates that interdisciplinary scholars experience a different kind of uncertainty than scholars working in established disciplines. Spanner describes a sense of insecurity among interdisciplinary scholars, particularly fringe scholars "trying to conduct meaningful literature searches in uncharted disciplinary territories" (2001, p. 356).

P4 indicated that he feels more confident searching for materials in his home discipline, philosophy, than in disability studies. He discussed several factors that make disability studies research difficult. As I mentioned in the previous section, the lack of a

database focused on disability studies means that there is no obvious source in which to begin a search:

> In philosophy, I know which databases have been most successful. There's even the Philosopher's Index, which is a great source. I have some journals I subscribe to and I know which ones I like to look at online. So you know, that's 35 years of trial and error 'til you get your core sources down...But with my beginning research in disability studies, I don't have my fallbacks.

Here, P4 discusses not just the lack of a disability studies database, but also the lack of other "fallbacks." In his philosophy research, P4 relies on a set of trusted journals and other core sources. He uses heuristics refined over years of experience. There are several reasons he cannot rely on the same strategy for disability studies research. For one thing, he is relatively new to the field, having moved into disability studies research in the last few years. He indicated that research might become easier over time, saying, "But I guess if I do this long enough, than I will begin to figure out the journals, if there are ones I haven't heard of, or databases that do a good job." Disability studies research is challenging for P4 not only because he is new to the field, but also because the field itself is relatively new. He said:

> It's a short history so far. There are some classics out there, but classics generally are meaning 20, 25 years. So there's that problem, and there's probably really my research skills, which is problematic, certainly in an area that you really have to dig deep to find.

P4 indicates that the emerging nature of the field, with its "short history," makes information seeking more challenging. By describing disability studies as "an area that you really have to dig deep to find," P4 indicates that research in disability studies requires more advanced search skills than research in some fields. At another point in the interview, P4 indicated that searching for disability studies information requires

creativity, saying, “I guess my ability to be creative in terms of search terms is not that fine tuned.”

Several participants stated that there is not much published research on their topic of interest. P4 said that there are very few sources on disability studies and philosophy, and other participants indicated that they work in areas marked by significant gaps in the literature. For example, P6 said, “Just the difficulty of finding stuff that’s current, stuff that’s even written, you know, it was definitely a struggle,” and P1 said, “We don’t have a lot of research...it’s a wide open field.” In this context of scarcity, it is understandable that participants are unsure about the reasons for their lack of search results. Sources that address their research topics might not exist, or the few sources that exist might be unindexed, indexed in an unanticipated place, or labeled in an unanticipated way.

INABILITY TO SPECIFY THEORETICAL PERSPECTIVE

Another challenge participants experienced was their inability to specify a theoretical perspective when searching. The concept of disability can mean different things within different perspectives and contexts. For example, a person with a disability can be conceptualized as a patient in need of rehabilitation, a tragic case in need of charity, or an oppressed person in need of justice. These perspectives are not necessarily static or mutually exclusive. Two participants especially, P4 and P8, described having difficulty identifying materials from the theoretical perspective that interested them.

P4 described feeling frustrated when attempting to search for films to use in his teaching. He explained that he likes showing films in class to introduce students to disability topics, but that most popular films do not meet his needs:

> I haven’t found really any way to do research, in terms of databases at least, in terms of videos or films that deal with disabilities. I mean, you get the popular

> movies, the Forrest Gump, but that's so misleading. And so I've probably located maybe a dozen, 15 films that I've watched, most of them tend to be documentaries, and most of them are pretty high quality...they're not syrupy, 'woe is me' kind of films, they're solid documentaries...Just assigning an article or a book about disability, that's good, it gets you to think, but it doesn't grip you as much as a good video. And that's where I have problems with finding a good resource to really come up with good films or videos. I Google it, but disability in films gets you all sorts of stuff.

P4's desire to use films in the classroom because of their power to "grip you" is supported by literature indicating that films can be valuable pedagogical tools in teaching students about disability (Schwartz et al., 2010). These articles note, as P4 does, that not all films about disability have the same pedagogical value. Many popular films portray people with disabilities in one of several stereotypical ways, for example, as "people to be pitied or super humans to be admired" (p. 841). P4 characterizes these films as "so misleading" and as "syrupy, 'woe is me' kind of films." Popular films reflect a particular cultural understanding of disability, but that understanding differs from the one preferred by disability studies scholars and disability rights activists. P4 seeks "a good resource to really come up with good films or videos." In this case, a "good" resource would one that retrieves films with a particular theoretical perspective. At another point in the interview, P4 said that he wants films that "are not just a Hollywood version of what it means to be disabled."

In addition to experiencing difficulty searching for films, P4 found it difficult to find print materials from his preferred perspective. In describing his research for a conference presentation, he said, "What I kept finding, and I still kind of find...is that if you key in disability, whether it be through the library's database or through Google, you still kind of get the medical model. And so I keep bouncing up against that wall."

The medical model is a central concept in disability studies scholarship. By giving the label "the medical model" to a particular way of viewing and responding to disability,

scholars and activists are able to analyze its consequences and posit alternative models. Tom Shakespeare (2006) writes:

> The social model is distinguished from the medical or individual model. Whereas the former defines disability as a social creation—a relationship between people with impairment and a disabling society—the latter defines disability in terms of individual deficit. (p. 198)

In the years since Mike Oliver coined the term "social model of disability" in 1983, various authors have challenged the utility of a facile distinction between a social and a medical or individual model, arguing that the disability experience is too complex to be understood in these terms (Shakespeare, 2006). Even without accepting a sharp distinction between models, however, one can argue that the medicalization of disability has facilitated the economic and cultural marginalization of people with disabilities. James Charlton (1998) writes:

> the poverty, isolation, indignity, and dependence of these 500 million people with disabilities is evidence of a major human rights catastrophe and a fundamental critique of the existing world system...the scant attempts to theorize the conditions of everyday life for people with disabilities are either incomplete or fundamentally flawed as a result of the medicalization/depoliticization of disability.... (ix)

When disability studies scholars' searches retrieve results consisting of medical diagnostic and treatment information, that material is not only irrelevant; it also represents a perspective they expressly reject as dangerous and damaging to the lives of people with disabilities.

None of the participants in this study expressed real distress at being confronted with the medical model, just frustration. The literature on marginalized groups in library settings, however, has shown that encountering search results and category labels associated with discriminatory views can alienate users. Librarian Marielena Fina (1993) writes about her experience in 1972 encountering the subject heading "Libraries and the

Socially Handicapped" to describe library services for Latino/as. Fina writes, "…'turned off' is an understatement for how this heading made me feel when I discovered it. One can easily see how this characterization of the subject would discourage patrons from seeking further access to information" (p. 11). It is plausible, then, that consistently encountering the medical model of disability in search results might make people with disabilities feel unwelcome in a given database or search engine.

Like P4, P8 described feeling frustrated by the large number of search results from a medical perspective. She said, "disability, you know, unless you search disability studies, which isn't always a word that people use, you're going to get lots of medical stuff, and that's really frustrating." She gave this example:

> I think probably the hardest search that I've had to do was looking for stuff about connecting environmental movements and disability movements. Because what I was and am interested in would be stuff about environmental illness, but what I would get is just thousands of hits about, you know, epidemiology or really specific medical cases, which is not what I wanted to find. So I think particularly when you're doing a disability studies search that does get closer to medical issues, it's really hard to figure out what that line is.

P8 contrasted her experience searching for disability studies material with her experience searching for material in other critical interdisciplinary fields:

> I think you can use a word like "feminist" or use a word like "queer," and that's going to be a great sorting mechanism in terms of the stance I'm looking for or the perspective I'm looking for, and that's much harder with disability.

As P8 points out, advocates of the social model of disability have not chosen to coin a new term to describe the experience of disability as identity; instead, they have assigned new meanings to the words used by the general public and the medical establishment. As Linton puts it, "While retaining the term *disability*, despite its medical origins, a premise of most of the literature in disability studies is that *disability* is best understood as a marker of identity" (1998, p. 12). Because the word "disability" is used by people writing

within multiple models of disability—medical, popular, and social—the word cannot be used as a "sorting mechanism" to identify the theoretical perspective of the writer.

P8 continued her discussion of words as sorting mechanisms, saying, "So, I mean, 'crip' is a great way to do that, but you're only going to get, like six pieces at most, and the same ones over and over again." Some people in the disability rights movement use the word "crip," short for "cripple," in an act of what Deborah Marks calls "defiant self-naming" (1999, p. 146). Marks writes:

> In much the same way as the gay community has reappropriated the term 'queer' to refer to a specific strand of gay culture, disabled people might call themselves 'crips'. Such language rejects 'positive' euphemism. It also contains an important element of 'in-your-face' confrontation with non-disabled people." (p. 147)

Because "crip" is only likely to be used by people invested in the disability rights movement, it functions as that "sorting mechanism" that P8 desires; however, doing a search for "crip" does not produce enough results for her purposes. Searching in a database or online for the word "crip" will leave out two kinds of articles: those that do not contain the word, and those that contain the word in the full text but not in the title, abstract, subject headings, or other fields represented in the item record.

Speculating about the possibility of a "sorting mechanism," P8 said, "I'm not sure what that word would be, but it would be great to have...a code word." Similarly, P4 said, "The search terms are not fine tuned enough," imagining a scenario "so when you key in disability it uses it in a different way than traditionally." P8 and P4 imagine a database or search engine that would allow them to find articles that conceptualize disability with a particular theoretical lens. A subject-specific database for disability studies might help serve this function. Another exciting possibility would be an information system that allowed users to search by theoretical perspective. Indexing terms usually represent only the "aboutness" of a document, not its theoretical perspective. The idea of searching by

theoretical perspective is not new, nor would its utility be limited to disability studies. Bella Hass Weinberg (1988) writes that "indexing which is limited to the representation of aboutness serves the novice in a discipline adequately, but does not serve the scholar or researcher, who is concerned with highly specific aspects of or points-of-view on a subject" (p. 3).

An inability to specify a theoretical perspective, an uncertainty about reasons for not finding materials, and a lack of academic infrastructure are three research challenges that disability studies scholars encounter. These challenges are connected to each other and to the characteristics of the disability studies field. For example, the lack of academic infrastructure, in the form of the lack of a subject-specific database, affects scholars' uncertainty about reasons for not finding materials and their inability to specify a theoretical perspective. Scholars' inability to specify a theoretical perspective is also related to the status of disability studies as a critical interdisciplinary field. As a critical interdisciplinary field, disability studies seeks social justice for a marginalized group, which involves conceptualizing disability as an identity and social status. But because the medical and individual models of disability are predominant in society, scholars have difficulty finding materials that apply a social model of disability. In the field of disability studies, scholars repurpose words like "disability" and "cripple" to convey new meanings. This linguistic feature of the field, however, presents a challenge for searching. In the following chapter, I discuss some of the search tactics and strategies participants use to respond directly or indirectly to the challenges and characteristics of the disability studies domain.

Chapter 3: Search Tactics and Strategies

In this chapter, I discuss the information search tactics and strategies that participants use to search for information. I have chosen to use the word "tactics" to refer to distinct information seeking activities, such as searching databases, searching the Web, consulting with colleagues, and browsing through library shelves. I use "strategies" to refer to approaches or mindsets that influence searching regardless of tactic, or that determine participants' choice of tactic. The strategies I identify are casting a wide net, narrowing focus, and altering search terms. My definitions of "tactics" and "strategies" differ from those of Bates (1979).

My goal in identifying participants' search tactics and strategies is to offer ideas about how they might be related to the characteristics of the disability studies field. For that reason, I focus on tactics and strategies that I found surprising. For example, I do not extensively discuss citation chaining (looking through the works cited in one relevant source to find further reading), because it is well documented in the literature as a key information seeking tactic for scholars in many disciplines.

SEARCH TACTICS

Like most scholars, the participants in this study use a variety of search tactics and combinations of tactics. Some of the tactics participants used were searching subject-specific databases, searching the Web, consulting with colleagues, consulting with librarians, searching within particular journals, and looking for the works of particular authors. All the participants indicated that citation chaining was an important part of their

information seeking. P8 noted that citation chaining helps her find material that is not retrieved in a database search:

> I would feel like, using databases, I'd completely exhausted all the searches and found everything there is to find. And then I'd read somebody's bibliography and they'd found all this stuff that I didn't know was out there.

This statement is consistent with Spanner's (2001) findings about interdisciplinary scholars relying on references in publications more than on formal bibliographic tools.

When I asked about browsing in library stacks, participants had a variety of responses. Two said they enjoy browsing. Four said they browse occasionally, with two of those mentioning that they had done so more often in the past. Two more said that they never browse in library stacks. My conversation with the final participant focused only on browsing at bookstores. Two participants who have physical disabilities mentioned that it is difficult to browse in stacks because of accessibility problems. P7 suggests one possible reason why browsing does not play a large role in most participants' research. She said that browsing was useful when she was an undergraduate, but now that her research topics are more specialized, browsing is less helpful than seeking out specific resources. She said:

> If you already have an idea...you have a more solid understanding of the theory and the background...you sort of know what you're looking for more, so maybe that's part of it too. In college I didn't know what I was doing.

In addition to citation chaining, browsing, and other tactics that have been well documented in the literature, participants discussed two tactics that surprised me: reading microblogs and using online recommender systems.

Reading microblogs

P5 is professor of English with a focus on technical communication and rhetoric, and he conducts research in the field of deaf studies. He said that his information needs include news articles, blog posts, and "what's happening now," in addition to scholarly articles. To gather this information, he uses the microblogging platform Twitter. He said, "Twitter is really helpful. I use other people to tell me what's happening right now." He elaborated on the way he uses the platform:

> Today I just clicked on the [research topic] hashtag, and that was really useful, it only took a little time to go through and see what kinds of things people were posting.

In response to my question about whether searching for disability studies information was different than searching in other fields, he responded in the negative:

> No, I don't think so. But you know, when I was doing other kinds of work we didn't have Twitter and all the other stuff, so I guess the work was different anyway. And now, I mean, I think even if I was doing something else I would still find people who were talking about stuff on Twitter. I mean, I don't think it's just disability.

P5's assessment of how Twitter has changed the research process across disciplines shows what a central role it plays in his work. Future studies on this topic might help determine how microblogs are changing scholars' research processes.

Using online recommender systems

Several participants mentioned that they use the recommender systems of online bookstores to find new reading. Recommender systems built into websites such as Amazon.com produce lists of suggested books. Recommendations can be based on the customer's past buying behavior, the customer's demographic characteristics, other customers' buying behavior, or the most popular items on the site (Schafer, Konstan, &

Riedl, 2001, p. 116). The popularity of online recommenders among the study participants suggests that scholars find them helpful. P9 said, "I've never gone to the library to get a book. I've bought some books from Amazon. And then when I'm on Amazon, I look and see what books are related." P3 said:

> I usually look at Barnes and Noble and that way I can see, number one, what are the books out there, number two, what are the books that are selling. Which is interesting just because I can see which books are having a more popular impact.

The participant who discussed online recommender systems in the most detail was P4, the philosophy scholar. He has done philosophy research for many years, but only recently started doing research in the field of disability studies. In looking for information about disability studies and philosophy, he tried several different search techniques and experienced difficulty finding useful information. Consulting with librarians was not much more helpful than searching databases on his own:

> I have sometimes scheduled appointments with the research librarians, but I'm usually the first one that's ever asked them that question, and so...they tend to fall back on their standard, oh, let's just look at JSTOR. Or let's look at the Philosophy Index. But they don't do much better than I do.

P4 found, as P8 did, that citation chaining was a more useful technique than searching databases:

> What's been the best thing for me is to just find a good article or a good book and then begin looking at their bibliography. And then that's been much more productive, ten times more productive, than me starting from scratch in the library.

To successfully engage in citation chaining, a researcher needs an initial "good book." To find these books, P4 searched Amazon.com, doing keyword searches and using the recommender systems. He described his process:

> What I did this summer...I set aside, like, $600, and I just went to Amazon, and over the summer spent $600 on books. But only on that one area. On disability.

P4 used his own money to buy personal copies of books rather than requesting purchases from the library. He gave two reasons for that decision: he likes to write in books, and the library might be unlikely to fill requests for hard copies of books because "they're spending money on databases and electronic books and things like that."

Within the Amazon.com website, P4 used several techniques for finding books. He started with a keyword search, varying the search terms:

> I started with just the general search, whether it be disability and philosophy, or sometimes disability and ethics, sometimes just disability studies...feminism and disability...queer studies and disability turned up some really interesting things.

Next, he looked at two types of bibliographies generated by Amazon's recommender systems. He said, "Then I would look and see what other people bought, or...Amazon sometimes recommends something."

Not every book that P4 found this way turned out to be helpful for his research. In describing the books generated by the Amazon recommendations, he said, "They're mostly good hits, there's a couple of misses." Of the books he bought, he says:

> I came up with some good ones, and you know, I came up with some not so good ones. I would read the reviews, but the people who commented, sometimes after I got the book I agreed, and sometimes I thought, well, this is not helpful. But you're just getting other people's opinions, you don't know where they're coming from. In fact you don't even know if they're the publisher, you know, planting people.

Despite the fact that not every recommendation, or even every purchase, turned out to be useful to his research, P4 was satisfied with the results of his Amazon experiment. He said, "That was beneficial, but it cost me 600 bucks, thereabouts, so I can't do that every summer. But it got me a good start at a little library, and a very good start at some bibliographies, and it also enabled me to begin to see the names that begin to show up."

He concluded, “I guess I benefited in some ways more from Amazon than I did from the library. And that’s not a bad thing.”

P4's satisfaction despite being recommended “a couple of misses” and purchasing “some not so good ones” suggests that he prefers recall to precision. In the field of information retrieval, precision and recall ratios are used to describe the results of search queries (Cleverdon, 1967). Precision is the fraction of retrieved documents that are relevant—for example, if a search results in 100 hits, how many of them will fulfill the information need? Recall is the fraction of relevant documents that are retrieved—for example, if there were 10,000 in the database that would fulfill the information need, how many does the search engine return?

For P4, buying books and citation chaining are part of an idiosyncratic combination of search tactics:

> So I guess my research has been very haphazard. I’m looking, you know, I just always keep an eye out, whether it’s Google or Kindle or Amazon or attempting with the databases or buying books or articles for their bibliography, that’s been my haphazard way of doing things.

In a fringe area such as the intersection of disability studies and philosophy, “haphazard” techniques help scholars address search challenges.

P5's use of Twitter and P4's use of Amazon.com present interesting avenues for further study. Although scholars in any field might use these tactics, it is possible that they are especially useful in fields such as disability studies.

SEARCH STRATEGIES

In addition to noting the tactics participants used to search, I paid attention to their comments about search strategies. Making a distinction between tactics and strategies

helped me understand participants' conceptions of how they made particular choices about where and how to search.

Casting a wide net

Several participants described an approach to searching that I refer to as casting a wide net. Casting a wide net is characterized by a desire to retrieve a large, varied set of results to sort through. Participants described a preference for getting "everything" and sorting through it themselves. Casting a wide net usually involved doing a global search, whether through Google, Google Scholar, multidisciplinary databases, or discovery tools, rather than relying on a specialized database.

When I asked P8, a feminist studies scholar, what databases she uses, she named Academic Search Complete, Project Muse, and JSTOR, then said, "Women's Studies International, and what is it called, GenderWatch? I've actually found those less useful than the more general ones, but I do use them." In describing what she found more useful about the general ones, she said, "More hits came up. They weren't always relevant, but more hits came up." In our discussion of subject headings, which I write about in more detail in Chapter 4, she said, "I think that I've just decided it's easier to get way more stuff than I need and have to filter through it myself than to remember to always type in these words I don't ever use." This desire to filter through information oneself is an aspect of casting a wide net.

P8 also describes supplementing her database searches with Google searches, "seeing if I could find stuff that Google could find that databases didn't recognize." Like P4, who was happy with his Amazon recommendation results even though they included "a couple of misses" and "some not so good ones," P8 is willing to sacrifice precision in

order to have high recall. She does not mind that her results "weren't always relevant" because she likes getting "more hits."

Similarly, P9, a social work scholar, indicated that she prefers recall to precision, saying, "If I got stuff, it wasn't wrong, it's just that it wasn't producing much." She explained why she prefers Google Scholar to the social work databases:

> I looked at the databases at [my university], but I really wasn't coming up with enough. Like, I didn't feel like it was comprehensive...even when I selected all the databases, all the topics, I didn't get as much as I get in Google Scholar.

Another scholar, P6, describes casting a wide net rather than using ERIC, an education database:

> Not even going database-wise, but looking to the Internet, looking at Google Scholar, looking at, you know, just because it opens the doors, and then it allows me to say, OK, well, is this article, you know, peer reviewed and all that stuff...it also opened the door to what I didn't have access to necessarily when I was looking at, you know, ERIC and all the other databases. So, you know, I just kind of tried to just do just a big giant look.

P6's comment about peer review makes it clear that casting a wide net is not a sign of a lack of information literacy. These scholars do not use Google for academic research because they "don't know any better"; they use it because they find it the most useful tool for their purposes. When P6 searches Google, she is conscious of the need to evaluate information for credibility.

P1, a nursing scholar, uses Google if she does not find the necessary information in PubMed: "If I can't find anything on PubMed, then I'll go to Google...Because it's kind of like, eh, you might as well go fish, see what you can find." For these participants, doing a "big giant look" and "go[ing] fish" are strategies that supplement or replace research in subject-specific databases.

Sometimes casting a wide net involves using multiple databases. P2 said:

> I typically will use multiple search engines, including Lexis Nexis and the Public Affairs Information Service, PAIS. I think some of the power search engines have been – I've found useful, that combine different approaches...if I'm doing a really thorough search I need to look at a lot of different kinds of searches.

The "power search engines" that P2 describes, which search multiple databases at once, are becoming more robust and commonplace in libraries (Randall, 2006). Different types of power search tools are referred to by librarians as federated search tools, metasearch tools, and discovery services. Another participant also described casting a wide net with power search tools:

> Now my university has something [that] searches all these different databases at the same time. So that I sometimes, let's try this and sort of see what pops up, videos, art, you know. (P3)

When I asked P3 whether he found the power search tool useful, he responded:

> I find it useful for certain things. It's too broad. I mean, so, all these things I don't want. But then sometimes I'll just do it just to kind of see if something will surprise me in some area that I wasn't thinking of, you know, like a video. An article out of some journal I had never heard of or something.

There are several possible reasons researchers might want to cast a wide net. As shown in P3's quotation, casting a wide net facilitates serendipity. P3 searches broadly to "see if something will surprise me in some area that I wasn't thinking of." Other participants also discussed the serendipitous effects of casting a wide net. In discussing multidisciplinary databases like Academic Search Complete, P8 said:

> I didn't always know what I was looking for, so sometimes finding a broader number of hits, even though they were less relevant, I would find things that I was like 'oh, I didn't know I needed that, now that I see it, I need that.

P6 gave a similar reason for using Google and Google Scholar: "It also just gives me some ideas as I'm looking, just because, I mean, there's all kinds of stuff that comes up."

Serendipity is important in many fields (Foster & Ford, 2003). It might be especially important, however, in interdisciplinary fields such as disability studies. P3 suggests that his desire for serendipity is related to the field's interdisciplinarity:

> Things pop up which I wasn't anticipating. Because, interdisciplinary things—all of a sudden some field you weren't thinking of, like economics or rhetoric or something, pops up and that's something I can use.

Interdisciplinary scholars might need to rely on serendipity, heuristics, and hunches because the high-scatter nature of their work. In Westbrook's study of women's studies scholars, one is quoted as saying, "'Keeping up' in the way that discipline-specific folks do is impossible" (2003, p. 198).

Is there any relation between casting a wide net and the search challenges discussed in the previous chapter? The first search challenge was a lack of academic infrastructure. Casting a wide net makes sense in the context of a lack of infrastructure, particularly because there is no database dedicated specifically to disability studies. The high-scatter nature of the field means that disability studies articles are published in many different journals. With no single database indexing them all, a global search might be the most efficient tool. Westbrook (2010) lists several reasons that interdisciplinary and area studies scholars experience problems when searching databases, including differences in terminology between databases, the fact that relevant information is distributed among many databases, and the fact that commercial companies have not invested in indexing material in newer fields.

The second search challenge participants described was uncertainty about reasons for not finding material. Perhaps casting a wide net helps alleviate this uncertainty. Doing a Google search might make scholars feel confident that they have found "everything" available on a topic. Seeing irrelevant results might be comforting, since it alleviates the

sense described by P9 that “I didn't feel like it was comprehensive.” The preference for filtering through material oneself, as P8 expressed, might offer a sense of control over the information. Of course, the sense that a Google or Google Scholar search produces everything is an illusion, since the Google search algorithms, like those utilized in all information systems, work from a limited collection of documents.

The third search challenge was the inability to specify a theoretical perspective. Given this challenge, I was surprised that participants chose to cast a wide net, because using a general search engine such as Google makes it likely that search results will reflect a popular or medical perspective on disability. Perhaps the benefits of casting a wide net outweigh this annoyance.

I do not claim that casting a wide net is unique to disability studies. Scholars in many fields use this search strategy. P9 said that she uses Google Scholar for research that is not related to disability: “Now that I've started using it like that, it's like my go-to.,,I'm feeling like Google's gonna produce a lot more than the databases will.” Further research could investigate how Google Scholar is changing information seeking for scholars in various disciplines, and whether its use is spread evenly across academic fields or concentrated in those with certain characteristics.

Narrowing focus

Not all participants use the search strategy of casting a wide net. Two mentioned using an opposite strategy: narrowing the focus of their search. This strategy might help prevent the risk of being overwhelmed with information.

The first participant who mentioned narrowing focus was P5, an English scholar who researches deaf studies. He said that he often searches for keywords within a single

journal at a time. By targeting the journals he hopes to publish in, he becomes familiar with a limited universe of information. He said:

> It's good to look all over the place, but if...I'm interested in publishing in a journal in composition studies, than I had better be familiar with the articles in that field that are talking about my topic.

He emphasized the importance of maintaining focus in a broad, high-scatter field:

> You know, it is such a broad field that at times you end up reading something, you know, that's more kind of technical, maybe something out of computer science where they're working on trying to automate the description of sound...sometimes I do feel a bit frustrated by just the breadth of the field, and I'll end up all over the place. And the challenge is to try to keep things focused.

The second participant who discussed narrowing focus was P7, the legal scholar. The field of legal scholarship can be conceptualized as a low-scatter field. P7 described the characteristics of legal research:

> Legal research itself is so specific...it really is an idiosyncratic kind of a thing. I would guess the medical and scientific stuff is kind of like that too, but the more generalized disability studies things I would imagine are similar to, like, critical race—more transferrable. But the legal stuff, we kind of have our own little databases and our own ways of searching for things.

She likes the search tools available through LexisNexis and Westlaw:

> That's a great function of Lexis and Westlaw, is it has a very nuanced search, so you can put 'in the same sentence as,' 'in the same paragraph as'...and so I tend to default to those a lot, because it's easiest to get really specific kinds of stuff. Because sometimes if you're doing, like, Google, it will have a phrase or similar words. And sometimes it autocorrects for you and gives you more things than you want. And so I think I like the sort of more traditional academic databases more.

Although she prefers academic databases to general Web searches, she sometimes needs to use the Web because the information she uses is too recent to be covered by the databases:

> I think that I generally have more luck doing disability studies research on the specific databases than just the more general Internet searches, but the problem

> I'm bumping up against with this project is that it's still so new that there [is]...not that much existing scholarship to draw off.

For P5, the English scholar, narrowing focus is a deliberate response to the challenge of working in the high-scatter field of disability studies. He is conscious of focusing his attention on a particular journal, and of working to avoid "end[ing] up all over the place." P7's preference for subscription databases over Google and Google Scholar, which runs counter to the preference expressed by many other participants, can be interpreted as a consequence the low-scatter nature of the field of legal scholarship.

Altering search terms

Several participants mentioned using the strategy of altering their search terms to generate different results in a database or search engine. Altering search terms is a well-documented search strategy. Bates (1979) calls this behavior paralleling and defines it as "To make the search formulation broad (or broader) by including synonyms or otherwise conceptually parallel terms" (p. 211). Westbrook (2003) noted that interdisciplinary scholars are especially likely to encounter a wide variety of search terms, because titles and abstracts reflect the perspective of authors' home disciplines and because indexing terms differ between databases.

P6 described her experience altering search terms:

> Developmental disabilities, when I was doing my search for that, I did type in intellectual, I typed in all the disabilities that fall under developmental that I could possibly think of. So, you know, it could go intellectual, I typed in cognitive, I typed in, you know, all kinds of terms to see what it could pull.

She mentioned that she sometimes got ideas for further search terms after seeing the terms used in the literature, remembering "looking even at the terms that are being used and maybe putting them in my own search." For her, altering search terms was a

successful strategy. Describing her process, she said, “I had to really kind of play with search terms.” Her use of the word “play” underscores the creative and unsystematic character of her search process. Not all participants, however, experienced success with their attempts to alter search terms. P4 found that some of the search terms he tried produced unwanted results:

> This was not very productive at all, I even tried to work, you know, cripples, or the handicapped, and again, those weren’t at all fruitful. You know, handicapped got me more golf scores, I mean, that sort of handicapped. Some things came up, and some things came up with crippled or cripples, but oftentimes you got as many advertisements for durable medical goods when you put in cripples, so as far as I can tell, disability is still the best sort of generic term.

Two participants stated that their need to alter search terms has changed over time. P2 has done research in the field of disability studies for roughly 30 years. When I asked him whether his keyword searches returned relevant results, he said, “I think it’s better now than it used to be when I started. But I’ve found, to be thorough, I need to use a number of search terms, including disability and impairment. For some of my work...I use chronic illness.” Similarly, P8, who has done disability studies work for 11 years, said, “I think this is less true now, but certainly when I started, I would use ‘sick’ and ‘illness.’ I think sometimes I found things searching ‘handicapped.’ It’s been a long time since I used that one, but I think I used to find stuff with that.” In the last few decades, examining disability as an identity has become more common, leading to less of a need to use search terms such as “sick” that reflect a purely medical understanding of disability.

One of the reasons altering search terms is a useful search strategy is that the language used to describe disability has changed over time. In fact, Valerie Sinason claims that “no human group has been forced to change its name so frequently. The sick and the poor are always with us, in physical presence and in verbal terms, but not the handicapped” (1992, p. 40). When P2 searches for information about intellectual

disabilities, he sometimes chooses his search terms based on the historical period of the documents he seeks. He said:

> There's been a change in terminology, from mental retardation, to developmental disability, to intellectual disability. Depending on the recency of the work, I would probably use terms that are more specific to the era in which they were produced.

Like P2, P9 found that some sources use the term "mental retardation" and others use "intellectual disabilities." She found that the Google Scholar search engine had a built-in mechanism for altering search terms:

> I noticed that if I put in intellectual disability, it would also pull up mental retardation. Which is good. Because I was worried that, you know, when you look at articles over a period of thirty years or whatever, that obviously was a term that was being used, even not that long ago, and still continues to be.

The feature P9 describes is called a word equivalency. When word equivalencies are built into databases or search engines, the system automatically maps search terms onto synonyms or related terms. The system might prompt the user to choose from a set of terms to search, or it might automatically run the search. Information systems use word equivalencies, for example, for "singulars/plurals, British/American spellings, some abbreviations or acronyms/spelled-out versions, forms of dates, etc." (Tenopir, 1992, p. 96). The differences between the terms "mental retardation" and "intellectual disability" are more theoretically and politically charged than the differences between singulars and plurals. For that reason, the use of word equivalencies might be helpful for some researchers and counterproductive for others. If a researcher were interested only in articles whose authors had used the phrase "intellectual disability," it might not be beneficial to automatically be given results that used "mental retardation."

Authors and classification designers constantly make difficult choices between terms, because language is fluid and dynamic and all fields develop preferred terms. As Michael K. Buckland writes:

> Language evolves within each community of discourse and produces and evokes that community. So every such community has its own more or less specialized, stylized practice of language. Attempts at controlled or stabilized vocabulary must deal with the multiple and dynamic discourses and the resultant multiplicity and instability of meanings....Since each community has at least slightly different linguistic practices, no one index will be ideal for everyone and, perhaps, not for anyone. (2012, pp. 158–159)

He gives the example that "in vernacular discussion of health, the terms cancer and stroke are commonly used, but in a professional medical discourse neoplasm and cerebrovascular accident are preferred names" (p. 159). He also notes that the same words might represent different perspectives.

In my discussion with P2, he mentioned that, although all fields develop specialized language, linguistic choices might have special salience in critical interdisciplinary fields. He said:

> Any specialization develops its own jargon and its own usage...if you work in a single paradigm all the time and there are some professional incentives to specialize in that way, you don't have to be all that sensitive. But certainly within disability studies there's a lot of concern over language, and I don't think it's just political correctness, I think it often reflects a kind of critical perspective on professional biases in terms of dealing with issues of impairment. So to do good work you really have to be reflective and critical.

In this statement, P2 suggests that disability studies is especially concerned with language for several reasons. First, because the field is interdisciplinary, scholars do not "work in a single paradigm all the time." In order to interact productively with people in other disciplines, they need to be aware of those disciplines' linguistic conventions. Sometimes, that means learning what language is considered insensitive in some disciplines. In another part of the interview, P2 described interacting with colleagues who "came out of

health services work and gerontology work, and so they...used terms that some people would find offensive. But it certainly was not anything but a lack of awareness." Secondly, in this statement, P2 states that the concern over language is not just "political correctness." In his article about the concept of political correctness, Norman Fairclough (2003) writes, "We need a balanced view of the importance of language in social change and politics, which avoids...dismissing questions about language as trivial" (pp. 26-27). In rejecting the idea that a concern with language is "just political correctness," P2 states that language is an important element of social change, politics, and academic inquiry. He went on to compare disability studies to other critical interdisciplinary fields, saying:

> I don't think it's unique to disability studies. I do think it's probably more acute in interdisciplinary areas, but it's also more true in areas that have a kind of commitment to social justice and social change, where there are, you know, pretty strong views about what you call things.

The political resonances of language affected participants' search processes in several ways. P1, a scholar in the field of nursing, explained that she sometimes needs to use search terms she considers problematic. In her own writing and teaching, she uses people-first language. She said:

> Disabled is not an appropriate term. I think that's one of the things that even APA format doesn't really appreciate, and I've been fighting every student or anybody that says "disabled people." It's like, "No, it's not disabled people, it's people with different abilities, or a person with disabilities."

Advocates of people-first language contend that identifying people by their disability first, as in the phrase "disabled people," dehumanizes them by implying that disability is the only important aspect of their identity. The phrase "people with disabilities" is preferred because it foregrounds the individual rather than the disability. As P1 mentions, the American Psychological Association style guidelines instruct writers to use people-first language (American Psychological Association, 2010, p. 76). P1 also expressed her

preference for using words such as “impariments” and “functional limitations.” Using these words allows one to draw a distinction between the limitations of people's bodies and the limitations created by their environments. One organization, for example, defined “impairment” as “an injury, illness, or congenital condition that causes or is likely to cause a loss or difference of physiological or psychological function,” and “disability” as “the loss or limitation of opportunities to take part in society on an equal level with others due to social and environmental barriers” (Northern Officers Group, 1999, p. 1). According to these definitions, a person with impairments may be disabled to varying degrees in different environments. As P1 explained, “if you've got all your assistive devices and your environment is completely ADA [in other words, compliant with the Americans with Disabilities Act],” you will be less disabled than someone with a similar impairment in a different environment.

Although P1 has a strong sense of the terms she prefers to use, they are not necessarily the terms she uses to search. She said:

> If you're having to do a search, then until we have a paradigm shift for society, you are forced to use the language that is recognized by the, um, the librarians who don't know what maybe is, I can't say politically correct, but sensitive or aware or just, they need a paradigm shift. Yeah. So anyway...I'm forced to use those words.

In P1's view, finding articles related to her topic requires using words that she does not consider “sensitive or aware.” She is “forced to use those words” in order to get useful search results. Like P2, she mentions the phrase “politically correct” but does not use it, indicating her desire to take language seriously as a marker of sensitivity and awareness. P1 also described disagreements over language she submitted papers for publication. When she used the phrases “chronic and disabling conditions” and “functional limitations,” the journal representatives asked why she didn't just say “disability.”

Scholars encounter differences in preferred terminology when they write as well as when they search.

It is important to note that not all disability studies scholars agree on preferred terminology for describing disability. While some, like P1, reject the term "disabled people," others embrace it. P2 said, "The whole thing about using people first language, it becomes a very artificial way to write. I use 'disabled people' just because writing 'people with disabilities' over and over again is a bit tedious." Linton (1998) suggests that P2's view might be increasingly common:

> Beginning in the early 90s *disabled people* has been increasingly used in disability studies and disability rights circles when referring to the constituency group. Rather than maintaining disability as a secondary characteristic, *disabled* has become a marker of the identity that the individual and group wish to highlight and call attention to. (p. 13)

Preferred language can vary with time, geography, culture, and decisions by individuals.

Not all participants objected to using search terms that might be considered offensive or insensitive. P2 said, "I just assume that things are often based on the background of the author, or in some cases just the professional background of the person doing the categorization." He is not troubled by using terms that might be considered insensitive; in fact, he views it as important to his research. He said: "You don't want to leave out the words that some people might find offensive, but that if you ignore them, you might find a lot of stuff that might be very helpful to the work you're doing." As a scholar of disability history and the sociology of knowledge, he is attuned to the cultural and historical contexts of documents and terms. He said:

> I think this has been true for a lot of areas, including the non-disability work I do, is that you have to come at it from multiple directions...I think a lot of interesting questions don't subside within a particular discipline or a particular set of terms. And particularly when one's doing kind of critical work, you often need to find

> things that do not necessarily have that kind of reflective quality, but that kind of reflect the conventional wisdom of the area you're working in.

An anecdote that Lennard Davis relates in the introduction to the *Disability Studies Reader* (2006) illustrates the dangers of removing offensive terminology from information systems:

> A bibliographer of the MLA Bibliography [said] that there was almost no way of retrieving articles or books on the cultural history of disability since proper categories did not exist. For example, an article on "crippled saints" could not be searched by computer because the word "crippled" was disallowed by MLA regulations as constituting discriminatory language. The bibliographer therefore filed the article under "saints" thus rendering it unretrievable by anyone with an interest in disability. (xvii)

This anecdote has prominent placement in the well-known *Disability Studies Reader* and repeated in at least one other article (Brueggemann, Garland-Thomson, & Kleege, 2005), suggesting that it has deep resonance in the disability studies community. As a parable about invisibility and erasure, it speaks to central concerns of disability studies. As a story about information systems, it illustrates the impossibility of "fixing" information systems by simply eliminating offensive terminology.

P2 suggested that librarians and other research coaches can help scholars understand the effects of seemingly small differences in language. He said:

> When you're doing research, not being sensitive to these language issues can mean that you often don't find things from a perspective other than yours, and so I think it really can hamper the research process…That's where good reference librarians or good research coaches, whether they're editors or whoever, can sensitize people to how things that seem nitpicking might in fact reveal fairly profound differences in perspective.

His statement suggests that negotiating the scholarly and political perspectives conveyed by differences in vocabulary is an important part of research.

This chapter has shown that scholars use a variety of search tactics and strategies to address the challenges and characteristics of disability studies research. The strategy of

casting a wide net, for example, might be a response to uncertainty about reasons for not finding materials and to the lack of academic infrastructure in the field. Altering search terms is a necessary strategy in a field where preferred terminology changes frequently and where differences in language convey differences in perspective. In the following chapter, I further investigate the effects of vocabulary and language on scholars' information seeking behavior. Specifically, I focus on how scholars interact with the language used in subject headings and index terms in databases and library catalogs.

Chapter 4: Interacting with Subject Headings

Subject headings, or index terms, are one of the most visible manifestations of classification systems. Catalogers and indexers apply subject headings to records for documents in library catalogs and databases. Subject headings allow users to find material on a topic without knowing the title or author of a particular work. In the foundational literature of critical classification theory, critics often analyze subject headings for evidence of bias in classification schemes. In this chapter, I first discuss how participants use subject headings in their research. Secondly, I discuss participants' evaluations of the subject headings listed in the database records of sample articles. In the third section, I discuss the Library of Congress Subject Headings for *Exile and Pride*, a book that is often taught in disability studies classes, based on my conversation with the book's author, Eli Clare.

DO PARTICIPANTS USE SUBJECT HEADINGS?

In each of the interviews, I asked a question similar to, "When you're in a database, do you look at the subject headings?" or "Do you ever use subject headings to find materials in databases or in the library catalog?" In some cases, I asked this question as we examined the sample database entries, which was helpful when some participants did not immediately understand what I meant by subject headings.

The majority of participants stated that they did not use subject headings with any regularity. In many cases, they found that subject headings did not have an adequate level of specificity:

> I've used those before, I haven't really found them very helpful...because my stuff was so specific, and what they were giving me was not that specificity that I needed or was looking for. And so it was just giving me very general kind of stuff, and I ended up with all kinds of stuff. (P6)

P2 described a similar experience. He noted, however, that subject headings had been helpful at an earlier historical point when there was less information available:

> I've never paid a lot of attention to subject headings. I just find that they're just too broad, you get too much stuff. You know, I did, early on when I was trying to find—there was very little published about these issues, so I looked at handicapped and I looked at all kinds of different things.

P3 said that he uses subject headings occasionally, but not often:

> I usually just search for my terms, and if I find an article and it's got a subject heading that I like, then I might click on the subject heading. I don't use it that often, but sometimes that does help me. But usually I just use my own search terms.

The legal scholar, P7, was the most enthusiastic user of subject headings and other organizational structures within databases. She specifically mentioned using the Headnotes system in the LexisNexis database:

> You have a headnote and you can click on it and then get a broader search that falls under those headings...And I definitely, if you get something that has a little search chain and you see where you are at the end of it, I've definitely gone farther up the chain to see if there's more sources somewhere else. So I do use that kind of stuff.

As I discussed earlier, P7 described legal research as an insular field with "our own little databases and our own ways of searching for things," as opposed to a "more transferrable" field such as critical race studies. It seems plausible that organizational structures such as headnotes and subject headings are more meaningful in low-scatter fields than high-scatter fields.

While some participants said that they do not use subject headings because they do not find them useful, others indicated that they avoid subject headings because the

terms used in the headings are not their preferred terms. This resistance to using subject headings is similar to P1's feeling about being "forced to use those words" when searching. This reason for avoiding subject headings is significant because of its relation to the "strong views about what you call things" that P2 described as a characteristic of disability studies.

In my interview with P8, the feminist studies scholar, we looked at the record for Rosemarie Garland-Thomson's "Integrating Disability, Transforming Feminist Theory." In the Sociological Abstracts database, the subject headings listed were: *Handicapped*; *Feminist Theory*; and *Theoretical Problems*. P8 said:

> So I'd have to search handicapped. See, I don't ever—I forget to do that. I think that's why I don't use subject headings very often. I think that I've just decided it's easier to get way more stuff than I need and have to filter through it myself than to remember to always type in these words I don't ever use.

In P8's case, the decision not to use subject headings is not just related to whether they return useful results; it is also related to her resistance to needing "to remember to always type in these words I don't ever use." Since the word "disability" is in the title of the article, she would probably have retrieved the article without searching for "handicapped," but this might not be the case for all articles. Similarly, P3 suggested that the reason he does not use subject headings might be partly due to a distaste for using "someone else's words":

> For whatever reason, I've never been kind of high on the subject things. Maybe I just never found them that helpful, or maybe I just like using my own words rather than someone else's words.

HOW DO PARTICIPANTS EVALUATE SUBJECT HEADINGS?

In addition to asking participants whether they use subject headings, I asked them to evaluate the subject headings listed in the sample records. A set of subject headings applied to an item purports to represent what the item is about, but, as many knowledge organization scholars have noted, classification schemes must necessarily highlight some aspects of an item and leave out others. As Buckland (2012) notes, "what people know, what they would like to know, and what others have learned and written about, all resist mechanical treatment" (p. 155). If we accept that any set of subject headings is an imperfect summary of a complex work, it becomes important to evaluate how well or poorly the headings perform in a given context. In this case, how well do the subject headings used in popular databases represent articles of interest to disability studies scholars, as evaluated by those scholars?

In asking scholars to evaluate the subject headings, I was asking them to perform a different role than the one they performed for most of the interview. For most of the interview, I addressed participants in their role as experienced searchers; for this set of questions, I addressed participants in their role as experts in the domain of disability studies. Classification designers traditionally consult with subject domain experts when making decisions about what words to use in a classification scheme or how to structure it.

Earlier, I described P8's response to the subject headings for Garland-Thomson's "Integrating Disability, Transforming Feminist Theory" in the Sociological Abstracts database. The Academic Search Complete database represented the same article with the following subject headings: *Surgery, Plastic*; *Women's studies*; and *Disability studies*. When I asked P8 about the subject headings, she focused on the *Surgery, Plastic* heading, saying, "Sometimes they seem random. Like, that one seems random. Plastic surgery is a

very small piece of that essay." Because of her familiarity with the article, P8 noticed that the subject headings emphasized one aspect of the article and left out others. Looking at the record in the database, there is no way to tell who assigned the subject headings or why, which contributed to P8's impression that they "seem random."

Another participant, P5, also critiqued the subject headings in a sample record. Since P5 is interested in deaf studies, I chose the article "Constructions of Deafness" by Harlan Lane to use as the example. The Academic Search Complete database represented it with seven subject headings: *Hearing impaired children*; *Social problems*; *Influence (Psychology)*; *Applied sociology*; *Human rights*; *Linguistic minorities*; and *Social change*. At the beginning of our discussion of subject headings, P5 stated that he does not usually pay much attention them, saying, "I don't know that I've ever even noticed those before." After looking at the headings, he critiqued the heading *Hearing impaired children*. He said:

> I don't know that those terms are that helpful. I mean, *Human rights*, I guess so. *Linguistic minorities*, maybe. But you know, *Hearing impaired*, that's not a term that Harlan Lane would use. I mean, he would say that's part of the medical model, the hearing impaired. So you know, I might just skip over those. I don't know that I've ever taken a close look at them.

P5 notes that that *Hearing impaired* is "not a term that Harlan Lane would use," and in fact, Lane critiques the term "hearing impaired" in the very article whose record we examined (1995). He states, "it is the troubled-persons industry for deafness that invented and promoted the label in English 'hearing-impaired'" (p. 181). In a book that predates the article (1992), Lane states, "The label has embedded within it the infirmity model that legitimates that establishment; and it exists only in opposition to hearing; in this it is like 'non-men' as a label for women, 'non-white' as a label for people of color, or 'sexually impaired' as a label for gays" (p. 89). From this perspective, the indexer who chose the

term *Hearing impaired children* instead of *Deaf children* when designing a controlled vocabulary was choosing sides in a political struggle. P5 said that he does not use "hearing impaired" as a search term and that other disability studies would not be likely to use the word:

> I don't know that I've ever gone to Google and searched for "hearing impaired." I mean, that's just a term I don't like. Even though everybody uses it, but people in disability studies aren't going to use that, unless they put it in quotation marks or something. Yeah, I don't know that I've ever used these terms, honestly, to search for anything.

The indexer who chose the term "hearing impaired" was likely not aware of the decision's possible political resonances. As disability studies discourse becomes better-known, indexers at Academic Search Complete—which bills itself as "the world's most valuable and comprehensive scholarly, multidisciplinary full-text database"—might decide to consult with subject experts in classifying disability studies materials.

A third scholar who evaluated the subject headings, P2, did not critique them in the same way P8 and P5 did. We looked at an article that was described in the Education Full Text database with the subject headings *Handicapped—Civil rights—History*, and in the America: History and Life database with six subject headings:

People with disabilities—Civil rights

People with disabilities—Legal status, laws, etc.—United States

People with disabilities—Government policy

People with disabilities—Employment—Law & legislation

Disabilities—Law & legislation

People with disabilities—Employment—Law & legislation—United States

I wondered whether P2 would respond negatively to the use of the word "handicapped" in the Education Full Text database, but he was not bothered by it. He suggested that the

differences in subject headings probably reflected the different audiences of the databases. He explained that the journal in which the article appeared is targeted to high school history teachers, and said, "The education one, maybe that reflects the fact that high school teachers are not often as current as university level." P2 was also the scholar who discussed the importance of using search terms that represent different perspectives, even ones that might be considered offensive. His perspective is influenced by his research focus on history and the sociology of knowledge, and his response to subject headings shows that scholars do not respond to classification systems in a monolithic way.

HOW DOES AN AUTHOR EVALUATE SUBJECT HEADINGS?

In this section, I examine the relationship between disability studies and information classification systems from another perspective. Information classification systems are usually evaluated from the perspective of the searcher, but it is also possible to evaluate them from the perspective of the authors of the documents being classified. I conducted an interview with Eli Clare, an author, poet, and activist whose work is often taught in disability studies classes. I first met Clare when he gave a lecture at my university. After the lecture, I bought his book *Exile and Pride: Disability, Queerness, and Liberation* (whose title will be shortened here to *Exile and Pride* or *Exile*). I had noticed the Library of Congress subject headings printed inside the book and found them provocative, so I asked Clare how he felt about them. We had a short discussion and exchanged contact information, and conducted a longer interview a few weeks later.

I was interested in Clare's perspective on the subject headings because of his expertise on disability studies, gender theory, and queer theory, and because of his

position as an author. Some will argue that, because works have a life of their own, the opinion of an author is not relevant to the assessment of information classification systems. Hjørland (1992) states that a book might have many possible subjects: the author's version, the reader's version, the publisher's version, and the librarian's version. These subjects frequently differ, and the author does not hold a privileged position in identifying the subject of his work. I believe, though, that librarians and classification designers can benefit from engaging authors in conversation about subject description. Authors, publishers, readers, libraries, and bookstores support and rely on each other in various ways. Librarians can learn from listening to the authors whose books we hold and represent, particularly when those authors have viewpoints different than our own. A report from the American Library Association stated that "if libraries are to remain relevant they must be willing to not only reach out to diverse user communities but to build a workforce reflective of that diversity" (D. Davis & Hall, 2007). If the profession of librarianship is serious about wanting libraries to be trusted and valued by members of marginalized groups, its leaders must listen to the voices of people in those groups. Hearing the opinions of authors from diverse groups is an important part of that process.

In performing a critical reading of the subject headings for a particular work, I follow the example set by feminist information organization scholar Hope Olson in *The Power to Name: Locating the Limits of Subject Representation in Libraries* (2002). Olson does a close reading of the Library of Congress subject headings and Dewey Decimal Classification numbers assigned to eleven books, identifying examples of the ways the classification systems represent the topics of the books in problematic or incomplete ways. The books she analyzes include bell hooks's *Talking Back: Thinking Feminist, Thinking Black*, Adrienne Rich's *Blood, Bread, and Poetry: Selected Prose, 1979-1985*, and Cherríe Moraga and Gloria Anzaldúa's *This Bridge Called My Back: Writings by*

Radical Women of Color. She states that she selected books that feature women of color, working class women, or groups that in some other way are "a multiple *Other*" (p. 184).

Although Olson's critique is enriched by her knowledge of cataloging rules and guidelines, it is beyond the scope of my thesis to comment on how the subject headings compare with technical cataloging guidelines. Because I am not well-versed in cataloging rules and procedures, my aim is not to suggest that different subject headings should have been chosen or to give an account of how and when subject headings were applied. Rather, my goal is to shed light on the way the subject headings might be interpreted from a disability studies perspective. My reading also differs from Olson's in incorporating the perspective of the author. While Olson drew on her own knowledge of feminist theory to analyze catalog records, I rely on the expertise of the book's author in addition to my own understanding of theory.

Like Olson, I am interested in studying how subject headings from a controlled vocabulary are applied to books that deal with complex identities. *Exile and Pride* foregrounds the perspective of "a multiple *Other,*" since Clare writes about his and others' experiences being Othered on the basis of disability, sexuality, class, gender, and intersections of these identities. *Exile and Pride* was first published in 1999 by South End Press, a nonprofit, collectively-run publishing house. In 2009, they published an updated edition of the book as part of their South End Press Classics series. The essays that make up *Exile and Pride* cover a broad range of topics, including race, class, disability, and the environment, and they weave together personal narrative, cultural criticism, history, and theory.

The three subject headings assigned to *Exile and Pride* by the Library of Congress are:

Clare, Eli

Women political activists—United States—Biography

Cerebral palsied—United States—Biography

In our interview, Clare described his initial response to the subject headings:

> What I...remember is opening the book when I finally got the book in hand, and noticing the subject headings and thinking, "What in the world is this? Have they really read the book?" And moving on from there.

To Clare, the subject headings were slightly baffling, but not worth dwelling on; he remembers "moving on." Clare's reaction is similar to that of some of the study participants who found subject headings problematic when they were pointed out, but do not usually pay attention to them. Clare described his sense of detachment from the subject headings: "I either wasn't paying attention during copy editing, or I did pay attention but felt that this was a realm that I had no authority over. And I clearly remember that initial sense of dismay and then just moving on."

Clare was not consulted about the assignment of subject headings, although he was heavily involved with other aspects of the book's publication, like the choice of title and cover art. For him, the process by which books are assigned subject headings was obscure and disconnected from his authorship. He said that my interview questions, which I had emailed to him in advance, prompted him to verbalize his critiques of the headings in a way he had not done before: "Rather than being like, oh yeah, I saw them, they don't make sense, whatever...your asking the questions made me think...and be like, oh, I can have an opinion about this." Even though Clare is an accomplished cultural critic—in *Exile and Pride*, he offers critical analyses of a public service advertisement, an article from the newsletter of an environmental group, and historical accounts of freak shows—the Library of Congress subject headings did not invite his critical eye until I asked about them. What is it about the subject headings that is so uninviting to dialog?

How would the field of information studies be different if scholars of disability studies and gender studies analyzed and critiqued subject headings the way they critique other cultural artifacts, like films and advertisements?

Clare spoke about each of the subject headings in turn. He did not find the first heading, his name, to be problematic. In his case, there is no discrepancy between his preferred name and the name assigned by catalogers. It is worth noting, however, that sometimes the names catalogers assign differ than the names authors use for themselves. For example, the works of bell hooks bear the subject headings Hooks, Bell, which does not follow the author's convention of using lowercase letters when spelling her name (Olson, 2002, p. 184).

The second subject heading, *Women political activists—United States—Biography*, seemed odd to me when I first saw it, because I have only known of Eli Clare as a man. When the book was first published in 1999, however, Clare identified as a woman. He had this to say about the second subject heading:

> The *Women political activists* makes some sense—in 1999 when *Exile* was originally published, I had not yet transitioned, and so I was living in the world as a woman, and a lesbian, and as someone who was seen as a man on one street corner and a woman on the next street corner, living in a very gender ambiguous place. So there's a way in which *Women political activists* as a heading in 1999 made some sense, although in 2011, because I now live in the world as a white guy, that heading makes much less sense. I'm not upset by having that piece of history connected to my work. It's a piece of history I feel really clearly about not wanting to abandon.

The subject heading *Women political activists* once "made some sense" in describing Clare, but now it "makes much less sense." This is just one striking example of a phenomenon that occurs frequently: as the world changes, subject headings stay the same, thereby becoming obsolete (Buckland, 2012). Even when organizations like the Library of Congress change subject headings, the old headings usually remain attached to

old works. This situation preserves a piece of history, and as Davis (2006) recounts in his story about the removal of the term “crippled” from the MLA database, retroactively changing subject headings might represent dangerous historical erasure. However, the presence of obsolete headings alongside current ones can also impede access to information, as in a situation Olson describes: “if a searcher finds, as I did, 113 records in the LC catalogue under 'Afro-American women,' what would make them suspect that there are more and newer records under 'African American women'?” (2002, p. 189).

Although Clare does not reject the *Women political activists* heading, he does critique it:

> The last essay in the book is, in part, about exploring the connections between gender and disability...in part through personal story of my gender location as someone who's never felt like a woman and never felt like a man. So there are ways in which assigning the heading *Women political activists*, that there was a little bit of a sense of, “Have you read the book?” You know, rather than *Political activist*. Like, “Have you read the book about what I'm saying about the gender binary?” Even at that point in my life.

The answer to the question, “Have you read the book?” might well be, “No.” Catalogers usually do not read books in their entirety when assigning subjects. Instead, they might skim sections of the book and examining the title, chapter titles, and publisher's summary. The cataloging textbook *Cataloging and Classification: An Introduction* (Chan & Hodges, 2007) gives these instructions about determining a book's subject matter:

> The most reliable and certain way to determine the subject content is to read or examine the work in detail. Since this is not always practical for reasons of cost, catalogers usually have to use other means. Titles are sometimes but not always a fair indication of content....Other features of the work often provide information relating to content. These include abstracts if any, tables of contents, chapter headings, prefaces, introductions, indexes, book jackets, slipcases, and any other accompanying descriptive material... (pp. 208-209)

These standard cataloging practices make it easy for catalogers to miss some aspects of a work. In addition, Clare's question, “Have you read the book?” is not simply about

cataloging practice. The subtext of the question is, “Do you understand my perspective?” The book's subtitle is “Disability, queerness, and liberation.” The catalogers must have read that subtitle as part of their subject assessment, even if time did not permit reading the entire book. Based on the subtitle, it seems clear that Clare's queerness is more central to the book than his gender, but there is no mention of queerness in the subject headings. As Clare points out, calling someone a *Woman political activist* rather than a *Political activist* emphasizes the gender binary, implying that a person's gender is her most salient feature. Not surprisingly, *Genderqueer political activists* does not appear in the list of accepted subject headings.

The third subject heading is *Cerebral palsied—United States—Biography*. To Clare, this was the most problematic heading and the one that he said created “a sense of, 'What in the world?'“ He explained:

> There's no secret that I have cerebral palsy. I write about having CP, I talk about having CP, there are a number of stories about living with CP that are very important in *Exile and Pride*. But all the stories are used in service to creating a broad-based, cross-disability politics and contributing to disability culture. So that I would say that the book in general isn't about cerebral palsy, but the book in general is about disability, disability history, disability culture, disability politics. And to have that sense of the book about disability being reduced or compressed into what is a medical diagnosis, something the doctors have said about my body. And cerebral palsy isn't the only thing the doctors have said about my body. To have all that politics and culture and history reduced to cerebral palsy was like a big, “What have you done and why have you done it?”

Like the scholars I spoke to, Clare rejects the medical model of disability. From his perspective, subject headings that focus on disability as a medical diagnosis rather than as a category of identity reify the medical model. As Linton (1998) writes:

> When medical definitions of *disability* are dominant, it is logical to separate people according to biomedical condition through the use of diagnostic categories and to forefront medical perspectives on human variation. When disability is rendered as a social/political category, people with a variety of conditions are

> identifies as *people with disabilities* or *disabled people*, a group bound by common social and political experience. (p. 12)

Conceptualizing disability as a common identity is an important step for collective political action. By assigning a subject heading related to Clare's individual medical diagnosis rather than a heading like *Disability*, *Disability politics*, or *Disability culture,* the catalogers at the Library of Congress inadvertently separate Clare's work from the work of other people in the disability rights movement. They prevent a searcher from using a single subject heading to gather material about disability as identity.

The catalogers who assigned the subject heading *Cerebral palsied* were probably unaware that it might be interpreted in the way Clare interpreted it. Perhaps their decision would not change if they were aware; as Buckland writes, "Since each community has at least slightly different linguistic practices, no one index will be ideal for everyone and, perhaps, not for anyone (2012, p. 159). Catalogers make difficult choices about how to represent articles. Their choices would be better informed, however, if they consulted with experts in the relevant fields. The Chan & Hodges cataloging textbook (2007) states, "Occasionally, subject specialists may have to be consulted, particularly when the subject matter is unfamiliar to the cataloger or indexer" (p. 209). Clare noted that South End Press, which he called "a small, really valuable lefty political press," has not published any other books with explicit disability themes. In discussions with them, he said, "I really felt their lack of experience with disability politics." It is likely, then, that neither the publisher who printed the subject headings on the book's copyright page nor the Library of Congress catalogers realized the political implications of the subject heading *Cerebral palsied.*

Clare also mentioned a second reason that the subject heading *Cerebral palsied* is problematic. In addition to isolating cerebral palsy from a broader disability identity, it uses an unusual form of the term. Clare said:

> And then to have cerebral palsy turned into an adjective, which I rarely, rarely encounter anywhere, is just a puzzle. In terms of the subject headings as a way of searching, who is going to search under, not cerebral palsy, but cerebral palsied?

Many people have charged that Library of Congress subject headings use esoteric terms. Berman objected to "The concealment of material on current and even vital topics by subject-cataloging it under remote or improbable rubrics" (1981, p. 4). For example, he wrote, books about job hunting were assigned the subject headings *Applications for positions.* In Rothbauer's study of self-identified lesbian and queer young women, she found that participants conduct keyword searches for the terms "lesbian" or "gay," but not "homosexual," which is a term used in many subject headings (2004). Similarly, a user looking for books about cerebral palsy would not be likely to search *Cerebral palsied.*

Two of the three subject headings end with the word —*Biography.* Clare noted that this heading seemed strange, because *Exile and Pride* is not a biography; it is a collection of essays. Even if the word *Biography* is used as an umbrella term under which autobiography falls, he said, he would not classify the book as autobiography. He said:

> A number of people read the book like this, read the book entirely as if it's autobiography or memoir...There's clearly big pieces of autobiography or memoir in the book, but the book is such a mix of memoir with political theory and thinking, and analysis with some history, with some political diatribe or polemic, that it's puzzling to me why, not just these headings, but why a lot of readers...see the whole book as memoir.

Labeling Clare's essays as autobiography depoliticizes them. By focusing only on the autobiographical elements of the essays and ignoring their theoretical, political, and

polemic character, the subject headings place *Exile and Pride* in the realm of the personal instead of the political.

Clare said that significant aspects of *Exile and Pride*, including its focus on environmental issues and on class, are left out of the subject headings. These aspects of the book are also frequently omitted when bookstores classify *Exile and Pride* and when professors teach it in classes. In addition, the publisher had difficulty deciding how to market the book and what categories to list in the corner of the back cover. Clare said, "So it's not just the subject headings that have trouble embracing how broad the book is."

Clare's critique of the subject headings is informed by a sophisticated understanding of the nature of classification. When we considered ideas for alternate subject headings, he said, "this is a really hard exercise for a book that is as wide ranging as *Exile* is. I mean, there's nothing simple here." His work with transgender activism has influenced his conception of classification. He said:

> One of the things that I often say when I do transgender awareness work is that...there's so much evidence to suggest that humans are such creatures of categorization. And what's also true is any categorization system that gets created, there will be things in that system which are always on the lines between categories, on the edges of the categories, or outside the categories...there's just not a way of categorizing that's going to effectively reflect the whole range of any way of being, whether it's geology, or mammals, or books, or genders, or whatever.

Communication scholars Susan Leigh Star and Geoffrey C. Bowker express a similar idea, saying, "If one examines any category, or any classification scheme, and looks at its genesis, it is clear that a category is something like a treaty or a cover of some sort that hides the messier version of what is inside" (2007, p. 273). Clare frames the problem inherent in imposing a classification system onto the messiness of life, saying, "So

basically, your question is, what do you do with this tension between the urge to categorize and the embedded limitations of systems of categorization?"

Clare suggests that part of the answer to this conundrum lies in acknowledging the limitations of classification and incorporating that knowledge into system design:

> This belief that no system is going to reflect the whole range of ways of existing, being, and naming. Just to have that knowledge go into the knowledge of that particular system is going to help figuring out what category systems reflect more of the whole range rather than less of the whole range.

By stating that some category systems might reflect "more of the whole range rather than less of the whole range," Clare implies that some classification systems are better than others, and therefore that the inherent limitations of classification systems should not be used as a rationale for failing to evaluate, improve, or choose between them.

Another way to address the tension generated by classification, Clare says, is to be attentive to the treatment of items that defy categorization:

> Learning how to deal with what falls outside, what falls in between, is really important. Like, how can we create a category system that acknowledges that it won't encompass everything easily or well, and how do you build into the system what falls outside, what falls on the lines? What do we do with the things, or people, or beings, that fall on the lines and on the boundaries and the outside? You know, do we punish them, do we embrace them, do we let the category system flex for them, do we gatekeep, do we silence, do we celebrate?

Clare identifies important ethical questions that must be confronted when one acknowledges the limitations of classification. Bowker and Star use the term "residual categories" to discuss the items that defy classification and are grouped into categories labeled "other." They state, "Residual categories have their own texture that operates like the silences in a symphony to pattern the visible categories and their boundaries" (1999, p. 325).

Choosing, evaluating, and using subject headings is complex. In my discussions with disability studies scholars and with Clare, I found that they do not interact with subject headings in a monolithic way. Some study participants critiqued subject headings that seemed to poorly represent articles, depoliticize disability, or support the medical model. Others focused on understanding subject headings in historical and cultural context. Still others focused on subject headings only as tools to be used, not as cultural artifacts to be evaluated. Clare demonstrated that queer, transgender, and disability theories offer useful tools for understanding the nature of classification. As he said, "No system is going to reflect the whole range of ways of existing, being, and naming. Just to have that knowledge go into the knowledge of that particular system is going to help." In the following chapter, I will offer suggestions for how librarians and knowledge organizers can change library services and information systems to better address the limitations of classifications and serve scholars in critical interdisciplinary fields.

Chapter 5: Conclusions

In this thesis, I investigated the question: How do disability studies scholars interact with information classification systems? My research questions were inspired by assertions by critical and feminist classification theorists that cultural values and presumptions influence the names and arrangements of categories in libraries and databases. I suspected that classification systems were influenced by historical understandings of disability, in which people with disabilities were cast as pitiable and disability was conceptualized as a purely medical phenomenon rather than as a political and cultural identity. I also suspected that disability studies research would be complex because the field is interdisciplinary and rapidly developing. I wanted to study how disability studies faculty and graduate students experienced the potential limitations of classification systems in representing their research topics.

In this qualitative study, I identified several distinguishing aspects of disability studies scholars' interactions with information classification systems. First, they experienced search challenges related to three factors: a lack of academic infrastructure, an uncertainty about their reasons for not finding materials, and an inability to specify a theoretical perspective when searching. Second, they used a combination of search tools and strategies. They relied on well-documented tactics such as citation chaining and consulting with colleagues, as well as on two less-studied tactics: reading microblogs and using online recommender systems. They also used the strategies of casting a wide net, narrowing the focus of a search, and altering search terms. One participant had a negative reaction to altering search terms, saying that she is "forced to use those words," while another discussed the value of using search terms that "reflect the conventional wisdom

of the area you're working in." Lastly, scholars had a variety of responses to subject headings. Several described subject headings as not especially useful, either because they find them too general or because they prefer not to use "those words I don't ever use" or "someone else's words." Two participants, in contrast, did find subject headings useful. As a complement to the user study, I conducted an interview on the record with author Eli Clare, who identified several ways in which the Library of Congress Subject Headings assigned to his book *Exile and Pride* do not reflect his theoretical perspective as an activist for queer, transgender, and disability rights. Clare discussed the inherent tension between the simple categories necessary for classification scheme and the not-so-simple entities in the world, asking, "How can we create a category system that acknowledges that it won't encompass everything easily or well, and how do you build into the system what falls outside?"

As Clare acknowledges, there is no clear-cut way to make classification systems perfectly egalitarian. There are many ways, however, for the designers of classification systems, their users, and intermediaries such as librarians to creatively address systems' limitations. As the study participants demonstrated, scholars use creative and piecemeal combinations of search tactics and strategies to get the information they need. Next, I will recommend some strategies librarians and knowledge organizers can use to interact creatively with information classification systems.

RECOMMENDATIONS FOR LIBRARIANS

Librarians and the decision-makers who structure librarians' workflows should recognize the complex nature of information seeking in fringe and high-scatter areas. Finding information about a topic is likely to require more time and energy in fields of

study where the body of literature is small, subject-specific databases do not exist, and terminology is not static. If librarians do not recognize the complexity of research in fringe areas, they are likely to rely on search tactics and strategies that are inadequate for a field such as disability studies, as demonstrated by P4's anecdote about the librarians whose searches were no more successful than his. P4 said, “I’m usually the first one that’s ever asked them that question,” and he described librarians' tendency to rely on fallbacks, searching JSTOR and a philosophy index. As librarians, if we are committed to being valued partners in faculty research processes, we should be prepared to look beyond our fallbacks when we hear questions we have never heard before. Of course, librarians can only provide this extra level of in-depth research if their workflows are structured to allow them to devote adequate time to scholars in fringe and high-scatter areas. By devoting library resources to providing excellent research assistance in emerging academic fields, library decision-makers can create a visible return on investment. If librarians’ collection development and reference responsibilities are divided along disciplinary lines, it might be especially important to pay attention to interesting new fields at risk of falling through the cracks.

I also urge librarians to recognize that patrons' seemingly idiosyncratic information seeking tactics and strategies are not necessarily signs of a lack of information literacy. Rather, these tactics and strategies might be skilled responses to the characteristics of a particular field of study. For example, P4's use of online recommender systems helped him gain a grasp of the field of disability studies scholarship in a way that visits to the library did not. If we understand idiosyncratic searching as a response to the characteristics of a field rather than just as an individual preference, librarians can work from a larger toolbox of search tactics and strategies and information studies researchers can learn more about how information seeking behaviors relate to knowledge domains.

RECOMMENDATIONS FOR KNOWLEDGE ORGANIZERS

Another set of recommendations is for knowledge organizers such as indexers, information architects, and database designers. These groups decide on the names and arrangements of categories in the systems that people use to find information. These names and arrangements will always fall short in reflecting "reality" and in matching the vocabularies of all potential users. As Buckland states, "linguistic expressions are necessarily culturally grounded, and, for that reason, in conflict with the need to have stable, unambiguous marks to enable library systems to perform efficiently. A static, effective subject indexing vocabulary is a contradiction in terms" (2012, p. 67). Acknowledging this contradiction, however, is not a rationale for failing to evaluate and change classification systems. The dynamic nature of language and culture necessitate dynamic systems. Equitable access is a core value of the information professions, and knowledge organizers must consistently pay attention to how well their systems represent and retrieve information about historically marginalized groups. As disability studies grows as a field in academia, information systems will change to reflect, albeit imperfectly, its perspectives.

The experiences of disability studies scholars highlight several sites for change. P9's experience with the terms "intellectual disability" and "mental retardation" shows that word equivalencies can be useful tools, and they might be especially useful given some scholars' reluctance to use "someone else's words." However, since scholars sometimes alter search terms in order to "find things that do not necessarily have that kind of reflective quality, but that kind of reflect the conventional wisdom of the area

you're working in" (P4), databases should build transparency into their use of word equivalencies and give searchers control over whether to use them.

My findings also showed that disability studies scholars are interested in the theoretical perspective of the items they search for. P4 wanted a way to find films that showed something other than the dominant cultural view of disability, and P8 wished there was a code word to filter out material about the medical aspects of disability. Some information studies scholars have suggested the ability to search for theoretical perspective would also make information systems more useful for scholars in other disciplines (Weinberg, 1988). Scholars would be well served by knowledge organization systems that would represent an article with terms that reflect its theoretical perspective in addition to its "aboutness."

Finally, I suggest that knowledge organizers consult with outside groups when making decisions about index terms in subject domains that are unfamiliar to them. The study participants, as well as Eli Clare, indicated that index terms like *Disabled people*, *Hearing impaired*, and *Cerebral palsied* communicate a particular perspective and, in some cases, can be read as offensive or insensitive. Although classification designers cannot avoid using terms that reflect perspectives, they should know the implications of their chosen terms in order to make informed decisions.

FUTURE RESEARCH

My findings point to several directions for future research. To my knowledge, this study is the first investigation of the field of disability studies by an information studies researcher. This growing field merits more attention from the information studies community, in part because it provides an example of a young, rapidly developing field

with a particular theoretical and political perspective. Several of the tactics and strategies used by the participants also warrant further investigation. More studies are needed to determine the ways that microblogs, online recommender systems, and commercial scholarly search engines such as Google Scholar have changed people's information seeking. Finally, I also hope that scholars of knowledge organization will conduct further empirical studies of information seeking by scholars and activists in fields such as disability studies, women's studies, and critical race studies. Knowledge organization concepts such as domain analysis (Hjørland & Albrechtsen, 1995) and ethical warrant (Beghtol, 2002) might apply to this research in interesting ways, although it was beyond the scope of my project to look into them. Groups whose members have "strong views about what you call things" provide important insight into the ethical and political dimensions of information organization, seeking, and use.

Appendix

Participant code	Department or discipline	Status
P1	Nursing	PhD candidate
P2	Sociology	Faculty member
P3	English	Faculty member
P4	Philosophy	Faculty member
P5	English	Faculty member
P6	Education	PhD candidate
P7	Law	Faculty member
P8	Feminist studies	Faculty member
P9	Social work	PhD candidate

Table 1 - Study participants

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Vita

Amelia Bowen Koford earned her BA in English and French from Grinnell College in 2007, graduating with honors and Phi Beta Kappa. Before beginning graduate school, she spent two years as an AmeriCorps*VISTA member at College Forward, a nonprofit organization in Austin, Texas. She is a candidate for an MS in Information Studies and an MA in Women's and Gender Studies from the University of Texas at Austin.

Permanent email address: kofordam@alumni.grinnell.edu

This thesis was typed by the author.